

Mutagenic Effects of Sodium Acid Pyrophosphate

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SODIUM ACID PYROPHOSPHATE

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STANDARDIZATION AND VALIDATION
OF THE FISH BIOASSAY TEST

November 1974

Compound Report No. 5

STUDY OF MUTAGENIC EFFECTS OF
SODIUM ACID PYROPHOSPHATE (FDA No. 71-61)

Prepared for:

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Public Health Service
Food and Drug Administration
5600 Fishers Lane, Room 4C-25
Rockville, Maryland

Contract No. FDA 73-215
SRI Project No. LSU-2760

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INTRODUCTION

Under contract to the Food and Drug Administration, SRI is examining the mutagenicity of selected chemical compounds (Contract No. FDA 73-215). This report describes the results of tests conducted on sodium acid pyrophosphate (FDA No. 71-61). It presents detailed descriptions of the methodologies used to perform these tests.

Four methods were used for evaluating the genetic hazards of the test compounds. These were: (1) host-mediated assay, (2) in vitro microbial assay, (3) dominant lethal test, and (4) mouse translocation test. Each procedure is described in detail below.

For the compound under consideration in this report, single and repeated oral administrations were performed at three concentrations for both the host-mediated assay and dominant lethal test. The amounts were: (1) a maximum level--the calculated LD₅ or 5 g/kg (whichever was lower); (2) an intermediate level--1/10 of the LD₅ or 1 g/kg (whichever was lower); and, (3) a low level--1/100 of the LD₅ or 200 mg/kg (whichever was lower). For sodium acid pyrophosphate the maximum level was 1400 mg/kg (the LD₅) in mice and 720 mg/kg (the LD₅) in rats. The intermediate levels were 140 and 72 mg/kg for mice and rats, respectively. Low levels were 14 and 7.2 mg/kg, respectively, for mice and rats.

In the mouse translocation test, the test material was fed in the diet at two dosage levels. These were: a high level--the calculated LD₅ or 5 g/kg, whichever was lower, and a low level--1/10 of the LD₅ or, in the case where 5 g/kg was used, 1 g/kg. For sodium acid pyrophosphate the high level was 1400 ppm (the LD₅), and the low level was 140 ppm.

SUMMARY

Host-Mediated Assay - Mouse

Sodium acid pyrophosphate (FDA No. 71-61) was not mutagenic in the host-mediated assay using Salmonella typhimurium TA1530, nor did it increase the mitotic recombination frequency in Saccharomyces cerevisiae D3.

In Vitro Assay

In the in vitro assay, sodium acid pyrophosphate was not mutagenic to S. typhimurium strains TA1535, TA1536, TA1537, and TA1538, either in the presence or absence of metabolic activation. At a concentration of 5%, sodium acid pyrophosphate did not increase the mitotic recombination frequency of S. cerevisiae D3.

Dominant Lethal Test - Rat

This experimental procedure produced no consistent response to suggest that sodium acid pyrophosphate (FDA No. 71-61) is mutagenic to the rat. The positive reference compound, TEM, a known mutagen, generally produced mutagenic responses from the first through the fifth weeks of the experiment, as expected. Mathematical treatment of the dominant lethal data, conducted according to a statistical program outlined by FDA, failed to show consistent significant differences (that could be attributed to an effect of sodium acid pyrophosphate) at $P < 0.01$ or $P < 0.05$.

Translocation Test - Mouse

An extensive translocation study of sodium acid pyrophosphate (FDA No. 71-61) was conducted in mice to investigate whether heritable mutagenic events occur when the compound is repeatedly ingested over an extended period.

Sodium acid pyrophosphate was administered in the diet for seven weeks at two concentrations (140 and 1400 ppm), forty adult male mice

per group. A similar number of control mice received the diet only during this time, while a positive control group received triethylene-melamine (TEM) for four weeks in the drinking water. Each male was bred to two virgin females to produce an F₁ generation, the males of which were raised to maturity. One hundred F₁ males per treatment level were bred to three virgin females. Evaluation of the pregnant females provided data that identified the nonbreeders, presumptive steriles, and partially steriles in each treatment group. Rebreeding these suspect animals reduced the number to three control, 20 TEM, and one sodium acid pyrophosphate (1400 ppm)-treated male. Three controls, three TEM, and one sodium acid pyrophosphate (1400 ppm) F₁ male were subjected to cytogenetic testes evaluation of meiotic cell preparations. None of the control meiotic chromosomes showed heritable cytogenetic abnormalities, while all three TEM males each had single reciprocal translocations. The single sodium acid pyrophosphate (1400 ppm) F₁ male was completely sterile, showing no meiotic cells.

HOST-MEDIATED ASSAY - MOUSE

Background

The host-mediated assay combines the advantages of the mammalian metabolic system with those of microbial systems for detecting mutagens or metabolites of chemicals that are not mutagenic. Microbial assays allow both the exposure of large cell populations to the chemical being tested and the determination of mutation frequencies. In addition, microbial assays are relatively inexpensive compared with other systems of detecting carcinogens. The mammalian organisms provide the metabolic activities present in mammals that are absent in microorganisms. For example, dimethylnitrosamine is not mutagenic on direct exposure to bacteria but is mutagenic in the host-mediated assay.

In the host-mediated assay, the indicator microorganism is injected into the host's peritoneal cavity at the same time the host receives the test compound by some other route, such as oral intubation or intramuscular injection. The microorganism is allowed to incubate while the animal metabolizes the compound. After the organism has had a chance to incubate, it is removed from the animal and assayed for mutations. Theoretically, during the incubation period, the organism is then exposed to whatever metabolite normally might reach the various tissues in the animal. By comparing the mutagenicity of the compound in vitro with that obtained in the host-mediated assay, it is possible to determine if any activation or deactivation of the test compound has occurred during metabolism in the animal. For this report, a detailed description of the methodology has been provided even though it has been generally outlined in the literature (e.g., E. Zeiger and D. Brusick. The host-mediated assay--a protocol for Salmonella and Saccharomyces. News-letter of the Environmental Mutagen Society 5, 32-34, 1971).

Materials and Methods

Microorganisms

A histidine auxotroph of Salmonella typhimurium TA1530 was used in these studies to measure biochemical reversion mutations. The yeast Saccharomyces cerevisiae D3 which is a diploid organism heterozygous for two linked genes (ade2 and his8), was used to measure for mitotic recombination.

Animals

Male Swiss albino mice, weighing an average of 28-30 g, were used for this study and maintained on a diet of Purina Lab Chow. The mice were obtained from Simonsen Laboratories, Gilroy, California.

Preparation of Microorganisms for Inoculation

The Salmonella strains were maintained on tryptone-yeast extract agar slants. To prepare the organism for inoculation into mice, a small inoculum from an agar slant was added to a broth consisting of 1.0% tryptone and 0.5% yeast extract. This culture was incubated for 24 hr at 37°C. The resulting suspension of cells was then adjusted to a concentration of 3-5 X 10⁸ viable cells/ml using a spectrophotometer.

The yeast strain was maintained on yeast extract (0.5%) glucose (5.0%) agar slants. To prepare the yeast for inoculation into mice, a small inoculum from the agar slant was added to a broth consisting of 5% glucose, 0.5% yeast extract, and 0.2% peptone. This culture was incubated on a rotary shaker at 30°C for 24 hr. The cell concentration was adjusted spectrophotometrically to a concentration of 1-3 X 10⁸ viable cells/ml before inoculating the animals.

Inoculation of the Mice

Two ml of the appropriate organism was inoculated into the peritoneal cavities of the mice using a 23-gauge needle. The area of inoculation was washed with ethanol before injection. The test compound was administered simultaneously with the inoculation.

Administration of Test Compound

The test compounds were administered by oral intubation using an 18-gauge intubating needle. The compound was dissolved in water or suspended in Mazola pure corn oil to a concentration requiring a 0.4 ml volume for each intubation.

The positive control compound for Salmonella, dimethylnitrosamine (DMNA), was dissolved in 10% ethanol to a concentration that would provide a 30-g mouse with a dose of 100 mg/kg. The positive control for the yeast, ethyl methane sulfonate (EMS), was dissolved in sterile saline to give a dose of 350 mg/kg/mouse. Positive control compounds were administered in 0.10 ml volumes by intramuscular injection.

Negative controls were run in all experiments. The negative control consisted of administering the solvent used for the test compound by oral intubation.

Autopsy and Recovery of Organisms

All test groups were sacrificed 4 hr after inoculation of the organism and administration of the test compound. The mice were sacrificed by cervical dislocation, their exterior abdominal regions were washed with ethanol, and 2 ml of sterile saline were injected into the peritoneal cavity of each mouse. The peritoneal cavity was opened aseptically, and the exudate withdrawn using a tuberculin syringe without a needle. The peritoneal exudates from each mouse were treated individually. They were placed in sterile tubes and immediately put in an ice bath. All plating of the samples was begun immediately after removal from the mouse.

Enumeration of Total Viable and Mutant Cells

Tenfold serial dilutions were made for each peritoneal exudate by serially adding 0.5 ml of sample to 4.5 ml of sterile saline. For the bacteria, a concentration series from 10^0 to 10^{-7} was prepared and for the yeast a series from 10^0 to 10^{-5} .

To enumerate the total viable bacteria, the 10^{-6} and 10^{-7} dilutions were plated by adding 0.2 ml of sample/plate to 3 separate plates. Each sample was spread over the surface of the plate using a sterile, bent glass rod. The medium used to enumerate total viable cells was as follows:

Bacteria Complete Medium

| | |
|------------------------|-------------------|
| Tryptone | 1.0% |
| Yeast extract | 0.5% |
| Agar | 2.0% |
| Dist. H ₂ O | to desired volume |

To enumerate the revertant mutant bacterial cells, the 10^0 (and the 10^{-1} dilution if a large number of revertants were expected) dilutions were plated as described for enumerating the total bacteria. Six plates were used for each sample. The medium used for enumerating mutants was as follows:

Bacteria Minimal Medium

| | |
|---|-----------|
| (NH ₄) ₂ SO ₄ | 0.2% |
| K ₂ HPO ₄ | 1.4% |
| KH ₂ PO ₄ | 0.6% |
| Na citrate | 0.1% |
| MgSO ₄ | 0.02% |
| Biotin | 0.5 µg/ml |
| Glucose | 0.5% |
| Agar | 2.5% |
| Dist. H ₂ O | to volume |

The glucose and biotin were sterilized separately and added to the autoclaved salt solution.

All bacteria were incubated at 37°C, the bacteria complete plates for 18 hr, and the bacteria minimal for 40 hr. If the plates could not be counted at this time, they were refrigerated.

To enumerate the yeast (both total viable cells and mitotic recombinants), samples from the 10^{-2} to 10^{-5} dilutions were plated on a yeast complete medium. They were plated in the same manner as described for the enumeration of the total bacteria. Total viable counts were

usually obtained by counting the 10^{-5} or 10^{-4} plates. The number of mitotic recombinant colonies was usually obtained by scanning the 10^{-3} or 10^{-2} plates with a dissecting scope at 10 X. The mitotic recombinants were seen as either red colonies or as red sectors on a normally white yeast colony. The prominence of the mitotic recombinants was enhanced by refrigerating for several days following the normal incubation of the yeast at 30°C for 48 hr.

The medium used for plating yeast was as follows:

| <u>Yeast Complete Medium</u> | |
|---|-------------------|
| Yeast extract | 0.5% |
| Peptone | 0.35% |
| Glucose | 2.0% |
| Agar | 2.5% |
| KH_2PO_4 | 0.15% |
| $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ | 0.05% |
| $(\text{NH}_4)_2\text{SO}_4$ | 0.45% |
| Dist. H_2O | to desired volume |

Data Handling

The data from all mice were used unless a great deal of contamination occurred or low recovery rates were obtained, possibly because the organism might have been injected into some organ rather than the peritoneal cavity. The number of colony forming units (CFU) or mitotic recombinants was determined by:

$$\frac{\text{No. CFU/plate}}{\text{No. plates}} \times \frac{1}{0.2} \times \frac{1}{\text{dilution factor}} = \text{CFU/ml in undiluted exudate}$$

The mutation frequency (MF) was calculated by:

$$MF = \frac{\text{total mutant cells}}{\text{total population}}$$

Treatment Groups

All treatment groups, including the positive and negative controls, consisted of 10 mice. The method used to determine concentrations of test compound is described in the section on the dominant lethal test.

The following groups were tested for all three organisms:

| <u>Group</u> | <u>Treatment</u> | <u>Day of Treatment on which Test Organism was Injected</u> |
|--------------|------------------------------|---|
| 1 | Maximum tolerated dose | 1 |
| 2 | Intermediate dose | 1 |
| 3 | Low dose | 1 |
| 4 | Appropriate positive control | 1 |
| 5 | Appropriate negative control | 1 |
| 6 | Maximum tolerated dose | 5 |
| 7 | Intermediate dose | 5 |
| 8 | Low dose | 5 |
| 9 | Appropriate negative control | 5 |

For testing FDA No. 71-61, the following doses were used:

Maximum dose - 1400 mg/kg
Intermediate dose - 140 mg/kg
Low dose - 14 mg/kg

In vitro Tests

The method described by Ames was used to determine in vitro mutagenicity for the bacteria (B. N. Ames, W. E. Durston, E. Yamasaki, and F. D. Lee. Proc. Nat. Acad. Sci. U.S.A. 70, 2281-2285, 1973).

To determine the in vitro mitotic recombination frequency of the test compound on the yeast, it was first necessary to determine what level of the test compound gave a 50% survival of the organism after a 4-hr exposure at 30°C. If the compound showed no lethal effects, a concentration of 5.0% w/v was used. In the actual test for mitotic recombination, the yeast (approximately 5×10^7 cells/ml) was exposed to the appropriate concentration of compound for 4 hr, and then samples were plated as described for determining mitotic recombinants in the section on host-mediated assay. The mitotic recombination frequency is expressed as sectors per 10^5 survivors. This was compared with a negative control.

In the yeast in vitro studies, EMS was employed as the positive control. In the bacterial in vitro assays, 1-fluorenamine was employed as the positive control for metabolic activation.

Results and Discussion

Host-Mediated Assay

Table 1 summarizes the results of the host-mediated assay of sodium acid pyrophosphate (FDA No. 71-61) with Salmonella typhimurium TA1530. (The data for individual mice are presented in Tables 3 and 4.) In the first experiment of Table 4, many of the plates were received from our supplier were contaminated (this problem was reported in Technical Progress Report No. 1, October 12, 1973). We conclude that sodium acid pyrophosphate is not mutagenic to S. typhimurium strain TA1530 at the doses tested when given as a single or multiple oral treatment. The known mutagen DMNA significantly increased the reverse mutation frequency of TA1530.

Table 2 summarizes the results of the host-mediated assay with Saccharomyces cerevisiae D3. (The data for individual mice are presented in Tables 5 and 6.) Sodium acid pyrophosphate did not increase the mitotic recombination frequency of S. cerevisiae D3 at the doses tested when given as a single or multiple oral treatment. The known mutagen EMS significantly increased the mitotic recombination frequency of S. cerevisiae D3.

In vitro Microbial Assay

In the in vitro assays, sodium acid pyrophosphate was not mutagenic to S. typhimurium either in the presence or absence of the metabolic activation system (Table 7). At a concentration of 5%, sodium acid pyrophosphate was not toxic to nor did it increase the mitotic recombination frequency of S. cerevisiae D3 (Table 8).

We therefore conclude that sodium acid pyrophosphate, FDA No. 71-61, is not mutagenic toward the S. typhimurium strains we have tested, nor does it increase the mitotic recombination frequency of S. cerevisiae D3.

DOMINANT LETHAL TEST - RAT

Background

Dominant lethal assays of compounds suspected of causing major genetic damage in animals have been carried out, for the most part, in mice. One exception was a comparative study by Bateman with mice and rats to evaluate the dominant lethal effect of triethylenemelamine (Genet. Res. Camb. 1, 381-392, 1960). Although there are cost savings in using the mouse rather than the rat, the latter has experimental advantages in providing more definitive information when attempting to assess the incidence of early fetal deaths. Also, corpora lutea counts in the mouse are difficult and relatively imprecise (S. S. Epstein and G. Rohrborn, Nature 230, 469-470, 1971). For this project, adult Sprague-Dawley-derived rats, from a closed random-bred colony, were used for the acute toxicity determinations as well as the dominant lethal assay.

In the mammalian test procedure, the compound under investigation was administered orally either once or on five successive days to proven male breeders. Following dosing, each male was mated with two adult female rats for seven days. The females were then removed, and new females again were added for another week of breeding. This sequence continued for eight weeks. Thus, the procedure is designed to indicate possible mutagenic effects on the male sperm, with the normal female acting as a carrier to demonstrate abnormalities that may have occurred in the male. Effects were evaluated by examining the state of fetal development during the middle to latter stages of gestation.

The experimental approach is presented below in a step-by-step manner to ensure clarity and an understanding of the preciseness of procedures used in this phase of the program.

Materials and Methods

Animals

Adult male and female Sprague-Dawley-derived rats were supplied by Simonsen Laboratories, Gilroy, California. The males were proven breeders, while the females were of virgin stock. Purina Lab Chow and water were available at all times.

Chemical Supply

All compounds or natural materials were supplied by the Food and Drug Administration. Each compound or natural material was provided in a ready-to-use form and was identified by both name and FDA code number. Sufficient quantities to complete all aspects of the experimental program were received. Excess supplies were placed in storage, should they be needed for future reference.

Solubility Studies

Solubility of each compound or natural material was investigated using such agents as water, propylene glycol, polyethylene glycol, corn oil, tricaprylin, carboxymethylcellulose, or methylcellulose (Methocel) to determine the most appropriate vehicle for administration. Because of the low toxicity of most materials and the consequent high dosages required, many of the test materials were administered as suspensions.

Acute Toxicity (Single and Multiple Dose)

Although acute toxicity information on some of the compounds was available in the literature, confirmatory tests were done to obtain an LD₅₀ under our laboratory conditions and for this strain of rat. If no data were available, a broad, range-finding dose regimen was conducted, followed by an accurate determination of the oral LD₅₀.

A range-finding dose regimen was conducted using the acute data to determine an accurate multiple dose LD₅₀. Nonstarved animals were used throughout this part of the study because of the multiple dosing regimen.

Dosage Selection

In selecting the three dosage levels for the experimental study, two approaches were used:

- (1) If a finite LD₅₀ was obtained, the highest dose level was the calculated LD₅. The intermediate dose was 1/10 of the calculated LD₅, and the lowest dose was 1/100 of the calculated LD₅.
- (2) If the LD₅₀ was greater than 10 g/kg (a mutually agreed on upper limit), the highest dose was 5 g/kg; the lowest dose was 200 mg/kg; and the intermediate dose was 1 g/kg. These guidelines were used for both single and multiple dose experimental study groups.

Control Groups (Vehicle and Positive)

A vehicle control group (corn oil, water, Methocel, etc.) was included in each experimental study. Vehicle control animals were included in both the acute and subacute studies. In this manner, breeding and implant data were obtained for each vehicle control and were used as reference comparisons for the experimentally treated animals, both the single and multiple treatment groups. The positive reference control was the known mutagen, triethylenemelamine (TEM), given at a dose of 0.2 mg/kg as a single i.p. injection. Breeding and implant data were obtained for eight weeks.

Acute Studies (Single Dose)

In an acute study, ten experienced breeder male rats per treatment group were administered a single oral dose of test compound. Controls were treated as previously described. Within two or three hours of dosing, each male was presented with two virgins of breeding age for a period of seven days. Females were replaced weekly over a total mating period of eight weeks.

Subacute Studies (Multiple Dose)

For the subacute assay, the experimental parameters used in the acute test were employed, with three exceptions: (1) five dosings

were given at 24-hour intervals; (2) weekly mating periods lasted for seven rather than eight weeks; and (3) the same positive control group used for the acute dosing also served as the reference group for the subacute assay.

Necropsy

Starting two weeks after the first day of breeding, one-fourth of the pregnant females in each group were sacrificed on four successive days. This schedule allowed for sacrifice of females between 11 and 18 days of pregnancy. A complete autopsy of each female was done to determine if there was intercurrent infection, since such a condition can induce preimplantation loss and early fetal deaths (G. Rhorborn, *Humangenetik* 6, 345, 1968).

Observations

At time of sacrifice, each female was scored for early fetal deaths, late fetal deaths, living fetuses (all of which provide a total implant score), corpora lutea, and pre-implantation loss (determined by subtracting the total implant score from the total corpora lutea score).

Evaluation

The following parameters indicate effects in dominant lethal studies: total implants (live fetuses plus early and late fetal deaths), total dead (early and late fetal deaths), dead implants per total implants, and pre-implantation loss (calculated as the difference between the total corpora lutea and total implant counts). We also evaluated total corpora lutea because a significant change of this parameter could influence the significance of the pre-implantation loss. Total implants, total dead, total corpora lutea, and pre-implantation loss parameters were analyzed for significance by the t-test.

The index of dead implants per total implants was analyzed statistically by the t-test on arcsine (or angular) transformed data, as described in Experimental Design (Theory and Application),

by Walter T. Federer, The Macmillan Company, 1955. This index was computed for each female.

The assumptions underlying the analysis of variance and the usual tests of significance are discussed by C. Eisenhart (*Biometrics* 3, 1-21, 1947); W. G. Cochran (*Biometrics* 3, 22-38, 1947) discusses the consequences when the assumptions underlying the analysis of variance are not fulfilled. These two papers, plus one by Bartlett (*The use of transformations. Biometrics* 3, 39-52 and 96, 1947), provide background information on this subject.

Results and Discussion

Single and multiple dose toxicity data are presented below.

Oral Toxicity - Rat and Mouse

Compound: Sodium acid pyrophosphate
FDA No.: 71-61

| | Rat | Mouse |
|----------------------------|----------|------------|
| Single dose ^a | 1.8 g/kg | 2.3 g/kg |
| Multiple dose ^b | > 1 g/kg | > 1.8 g/kg |

^aTen male, Sprague-Dawley rats, weighing 278-344 grams each, and ten male, Swiss Webster mice, weighing 20-22 grams each, were fasted overnight and then administered orally specified amounts of the candidate compound dissolved or suspended in water.

^bTen male, nonfasted Sprague-Dawley rats, weighing 293-317 grams each, and five male, nonfasted Swiss Webster mice, weighing 22-25 grams each, were administered orally specified amounts of the candidate compound dissolved or suspended in water.

After an evaluation of the toxicity data, dosage levels for the mutagenesis assays were selected as follows:

Single dose--720 mg/kg, 72 mg/kg, and 7.2 mg/kg

Multiple dose-- 720 mg/kg, 72 mg/kg, and 7.2 mg/kg.

Throughout the experiment, the biological criteria used to evaluate mutagenic effects in the rat showed no consistent responses that could be attributed to treatment. There were occasional statistical differences between control and sodium acid pyrophosphate-dosed groups, but they were random and did not suggest a time or dose-response effect.

Table 9 presents summary data on the implantations per pregnant female, Table 10 summarizes dead implants per pregnant female, Table 11 summarizes dead implants per total implants, Table 12 summarizes corpora lutea per pregnant female, and Table 13 summarizes pre-implantation loss per pregnant female.

Appendix A presents a description of the statistical analysis procedures used for dominant lethal tests with an explanation of the computer printouts.

Appendix B contains computer printouts of the raw data and the statistical analyses.

Careful review and statistical evaluation of the data do not show sodium acid pyrophosphate (FDA No. 71-61) to be a mutagen in the rat by the dominant lethal test.

HERITABLE TRANSLOCATION TEST - MOUSE

Background

Human populations frequently are exposed to man-made chemicals for extended periods, and often at borderline detectable levels. To evaluate the genetic hazards of such chemicals, it is considered prudent that such materials be studied in mammalian systems at several dosages in order to maximize detection of a mutagenic response.

Chemical induction of chromosomal aberrations in the mouse is an important experimental tool, in view of the many human genetic defects that are due to various chromosomal anomalies. To date, evaluations of chemically induced chromosomal aberrations have been attempted with the dominant-lethal test and cytogenetic studies of somatic and germinal cells of certain mammals. Although these test procedures can provide useful information, they do not measure heritable genetic effects. Obviously, the most important mutagenic effects are permanent and transmissible. A need has existed, therefore, for a method which can reliably identify compounds that cause heritable chromosomal aberrations in mammalian systems. The mouse translocation procedure would appear to be such a system.

A well-defined translocation test will determine the fertility of an F_1 male population derived from F_0 males treated with a test agent. Confirmation of a sterile or a partially sterile response can be obtained by cytological examination of the germ cells from suspected males. Sterility and partial sterility are closely correlated with the induction of translocation heterozygotes.

The procedure used in conducting this translocation test was based on experimental techniques described by Leonard and DeKnudt (Mutation Research 9, 127, 1970), Cattanach et al (Mutation Research 6, 297, 1968), Falconer et al (J. Genetics 51, 81, 1952), and Generoso (Meeting Environmental Mutagen Society, March 1971, p. 9, Abstracts); modifications of approach were made by staff of this laboratory in consultation with staff of the Genetic Toxicology Branch, Bureau of Foods, FDA.

Materials and Methods

Animals

Adult male and female ICR/SIM mice were supplied by Simonsen Laboratories, Gilroy, California. The F₀ males, used in the test compound treatment groups, were three- to four-month-old proven breeders. Females, used in the breeding phases, were 9- to 10-week old virgins.

Chemical Supply

All materials for evaluation were supplied by the Food and Drug Administration with the exception of N-methyl-N'-nitro-N-nitroso-guanadine (MNNG), which was purchased by SRI from Aldrich Chemical Co., San Leandro, California. Sufficient quantities to complete all aspects of the experimental program were received. Excess supplies have been placed in storage, should they be needed for future reference.

Acute Toxicity (LD₅₀)

Although acute toxicity information on some of the compounds was available in the literature, confirmatory tests were conducted to obtain an LD₅₀ under our laboratory conditions and for this strain of mouse. If no data were available, a broad, range-finding dose regimen was conducted, followed by an accurate determination of the oral LD₅₀.

Dosage Selection

Two treatment levels were used in the translocation test. In selecting these levels, two approaches were used:

- (1) If a finite LD₅₀ response was obtained, the maximum dose was the calculated LD₅; the lower dose was 1/10 of the calculated LD₅.
- (2) If the LD₅₀ was greater than 10 g/kg (a mutually agreed-upon upper limit), the maximum dose was 5 g/kg; the lower dose was 1 g/kg.

Reference Control

Two reference control groups were included in this contract program. One was run at the beginning of the series of translocation tests; the other was done at the end of the test series. In this manner, breeding and implant data were obtained at two separate time periods, as well as providing an increased reference-control data base. F_0 males in these groups were fed a finely ground commercial laboratory diet with corn oil added at a level of 2%; thereafter, all animals in these groups were fed a commercial pelleted diet. Water was available ad libitum. Control groups were treated in the same manner as compound test groups.

Positive Control

A positive control was run concurrently with a negative control.

For this group, the known mutagen triethylenemelamine (TEM) was administered initially in the drinking water (0.32 mg/l) for four weeks, at an approximate ingestion dose of 0.062 mg/kg/day. Fresh TEM solutions were prepared daily. A commercial pelleted diet was available at all times.

In this exploratory study, forty treated males bred to 81 females produced only 11 litters. The large number of sterile males and the small size of the litters showed that the dosage level was too high to allow production of sufficient numbers of offspring for adequate evaluation. A confirmatory TEM study using the same dosage regimen had been underway for two weeks when the first TEM data became available. TEM concentration was immediately reduced for the final two weeks to 0.124 mg/l, an intake level of approximately 0.024 mg/kg/day. Discussion of the results for both TEM experiments is presented in Results and Discussion.

Administration of Test Compounds

The candidate compound was fed in the diet to adult male mice for seven weeks. An appropriate amount of compound initially was dissolved or suspended in corn oil; then the compound-oil concentrate

was added at a level of 2% to a finely ground commercial diet of known composition. The use of corn oil assured even distribution of the compound and presented stratification of the test material in an otherwise dry diet. Diets prepared at two-week intervals were refrigerated at 4°C until fed to the animals. In addition, the diet was replaced in the feed containers every other day to minimize the possibility of compound loss.

Genetic Tests

After seven weeks of dietary compound treatment or four weeks of TEM drinking-water treatment, approximately 40 treated males per group were mated, each with two adult virgin females; after two weeks, each female was housed individually and allowed to litter. Impregnation time was based upon the date of parturition. Litters from the second week of breeding were discarded. Weanling females were discarded while males were raised to maturity (10-12 weeks). At maturity, 100 F₁ males per group were randomly selected and housed individually. Three adult virgin females were bred to each F₁ male for a period of two weeks; examinations were made daily for the presence of vaginal plugs. Females were sacrificed 14 days after mating; a uterine analysis was performed to determine the number of total, live, and dead implants.

Criteria for Classification of a Male as Sterile or Partially Sterile

An in-depth statistical review of breeding data from control animals was performed by Theodore W. Horner, Statistical Consultant, Division of Mathematics, Bureau of Foods, Food and Drug Administration. This review of a normal litter size distribution and discussions between the FDA and SRI technical staffs provided the necessary information for establishing the classification criteria for a male as sterile or partially sterile.

Classification of a F₁ male mouse as sterile or partially sterile was made according to the following criteria:

- o "Partially Sterile" Male

- (1) If all three females are pregnant, each female must have 9 or fewer live implants---with at least one female having 6 or fewer live implants.
- (2) If two of three females are pregnant, both females must have 9 or fewer live implants---with one female having 6 or fewer live implants.
- (3) If only one of three females is pregnant, this female must have 6 or fewer live implants.

- o "Sterile" Male

- (1) None of three females pregnant---previously identified by presence of a vaginal plug.

Any F_1 male that did not fit one of the above-mentioned selection criteria was considered "normal".

F_1 males found to be sterile or partially sterile were held for future evaluation (i.e., additional breeding and/or cytogenetic study of meiotic chromosomes).

Evaluation

A careful review of the F_0 breeding and litter data was conducted to determine if there were possible correlations between compound treatment and breeding performance, litter size, or sex distribution.

F_1 males were identified as sterile or partially sterile by the evaluation method outlined above. Individual data were totaled to give the number of observed F_1 males (presumptive translocations) per treatment based on the breeding of 300 females per group. Various parameters were evaluated such as percent pregnancies, average litter size, average number of males per treatment bred to females with 0 - 5 or more dead implants, average number of females per treatment with 0 - 5 or more dead implants, percent per treatment with plugs, and percent pregnancies per treatment with and without plugs.

Meiotic Cell Cytogenetic Studies

Male mice that showed characteristics of presumptive translocation after two breedings were reviewed by FDA and SRI staff members. Selected males were then evaluated for chromosomal translocations by examination of meiotic preparations of the testes. Cytogenetic studies were conducted by Dr. K. S. Lavappa, Department of Cell Culture, American Type Culture Collection (ATCC), Rockville, Maryland.

The two testes from each animal were weighed and examined separately. Meiotic preparations were made with the air-drying technique. Spermatocytes in diakinesis-metaphase I were examined for the presence of translocations. From each testis, four slides were examined and 40 spermatocytes were scored per testis.

Results and Discussion

Acute Toxicity (LD₅₀)

The LD₅₀ in mice was 2.3 g/kg with 95% confidence limits of 2.0 to 2.7 g/kg. The calculated LD₅ for this compound was 1.41 g/kg. Based on the LD₅₀ data, the following dosage levels for the translocation study were selected:

Maximum dose 1400 mg/kg

Minimum dose 140 mg/kg

F₀ Generation

Although information about the F₀ generation should be included in the evaluation of translocation data, often it has not been presented or discussed in the reporting of a translocation study. Information on breeding performance of the mouse strain used, litter size or distribution, sex distribution, and the effect of compound treatment on the above, can provide valuable background data.

Table 16 summarizes the breeding and litter performance of the F₀ generation. The TEM I experiment produced a high degree of sterility. Therefore, it was necessary to reduce the concentration of TEM in an ongoing second experiment. By reducing TEM in the drinking water to one-third the original concentration, the second experiment provided

us with a satisfactory mutagenic response. No adverse effects were observed in either of the sodium acid pyrophosphate treated groups. Both control groups performed in a normal manner for this strain of mouse.

Table 17 presents litter-size distribution of the F₀ generation mice. Although litter sizes were smaller in the TEM-treated groups, other groups had normal litter-size distributions.

F₁ Generation

Table 18 summarizes breeding data for the F₁ generation mice. In the TEM I experiment, there was a decrease in the percentage of pregnancies. Other groups responded normally for the ICR/SIM mouse strain.

Litter-size distributions are presented in Table 19. As was the case with the F₀ generation, TEM groups had smaller litters. Other groups were normal.

Dead implants per F₁ male are presented in Table 20; dead implants per female are summarized in Table 21. In both TEM studies, there were greater numbers of females with 3 to 5 dead implants than in the control or sodium acid pyrophosphate groups. Dead implant incidence for these latter groups was low and similar.

Table 22 presents a summary of the breeding results, by group, of those F₁ males found to be sterile or partially sterile. In Table 23, the individual F₁ animals are identified by number and treatment. TEM groups I and II showed an incidence of this response of 75% and 15%, respectively; the reference control and sodium acid pyrophosphate groups had an incidence ranging from 1% to 2%. Females bred to partially sterile males in the TEM groups showed an increased number of dead implants along with a lesser number of viable implants. This condition was not seen in the reference control or sodium acid pyrophosphate groups. Individual data on these animals can be found on the project "Translocation Data Sheets," which will be submitted separately to FDA.

Tables 24 to 26 present summary breeding and rebreeding data of presumptive F₁ males. In the first reference control experiment,

five males were nonbreeders and one met the criteria of "presumptive". When these animals were rebred, only two of these remained as nonbreeders. The second reference control experiment provided similar type responses. Out of 100 F₁ males in this group, six were found to be presumptive mutants after the first breeding schedule; the rebreeding of these males showed only one animal remaining as a presumptive. This male (No. 1455) had two females with seven viable implants per female and one female with plugs but no pregnancy; the rebreeding with three new females showed no evidence of mating (Table 24).

In Table 25, the effect of TEM producing heritable translocations is strongly implied. Eight F₁ males from the first TEM study produced six presumptive mutants by our evaluative criteria. Rebreading of these six a second and third time continued to show a presumptive mutant condition for all six animals. For the second TEM experiment with 112 F₁ males, 17 of these animals fit the criteria of "presumptive" after the first breeding schedule. When these 17 were rebred to new females, 14 of the males still remained as presumptive mutants.

For sodium acid pyrophosphate (Table 26), 100 F₁ males (from the 140 ppm dietary treatment of the F₀ generation) showed three animals to be presumptive mutants after the first breeding. When these three were rebred, none of the males remained in the presumptive mutant category. For the 1400 ppm sodium acid pyrophosphate group, five males out of the 100 tested showed evidence of presumptive mutancy after the first breeding. When the five were rebred, only one animal still remained in this category; none of the six females had shown evidence of pregnancy throughout the two breeding regimens, although all six of these females were identified with a mating plug.

Cytogenetic Studies

Table 27 shows the findings from the cytogenetic evaluation of meiotic cell preparations from those F₁ males selected by the FDA project officer for examination. Dr. Lavappa found the two control I and one control II mice to be cytogenetically normal. The three TEM I mice, however, each had single reciprocal translocations. The single

sodium acid pyrophosphate (1400 ppm) male was completely sterile (no meiotic cells). His report to SRI included the following statement:

These animals were examined for heritable cytogenetic abnormalities (reciprocal translocations). Three of the animals, F₁ 103, 106, and 108 each had single reciprocal translocations. The three control animals F₁ 15, 40, and 1455 were cytogenetically normal. Male F₁ 699 was completely sterile (no meiotic cells).

The original report by Dr. Lavappa and photographs are on file at Stanford Research Institute.

The main objective of this investigation was to study the methodology of performing mammalian translocation experiments and to evaluate such a procedure with a specific compound, sodium acid pyrophosphate. The original experimental plan involved a single breeding of F₁ males to virgin females. The results of this effort produced relatively large numbers of nonbreeder and partially sterile animals, as many as four to eight per group. Examination of the breeding data from these suspect animals showed many not to have had evidence of mating--no evidence of a vaginal plug in any of the three females caged with a specific male. Thus, it was decided to rebreed each of these suspect males to three additional virgin females. Although this extra task went beyond the requirements of this contract, it was our intent that this procedure be developed in a manner which would provide maximum information, still considering the realistic output of effort and cost.

We believe this rebreeding of initial presumptive mutant males is a significant contribution to reducing the possible interpretive error of presumptive mutant occurrence. For definitive confirmation of these biological results, cytogenetic examination of these animals should be done. Cytogenetic study of meiotic cells is tedious and time consuming. If confirmation of presumptive males had been done after the first breeding schedule was completed, some 43 animals would have had to have been examined. After the rebreeding regimen, only 24 animals

still remained as presumptive mutants. These totals include the TEM groups as well as the reference control and sodium acid pyrophosphate groups. If the TEM animals are excluded, there would have been 20 presumptive mutants in the reference control and sodium acid pyrophosphate groups after the first breeding; when rebred, only 4 animals remained as presumptive mutants (3 controls and 1 in the 1400 ppm sodium acid pyrophosphate group).

Table 1
 SUMMARY OF HOST-MEDIATED ASSAYS WITH
SALMONELLA TYPHIMURIUM TA1530

| Regimen | Experiment Number | Compound | Dose/kg | Avg CFU per ml (X 10 ³) | Avg His ⁺ Revertants per ml | His ⁺ Revertants per 10 ⁸ CFU |
|------------------------------|-------------------|---------------------------|---------|-------------------------------------|--|---|
| Single Treatment | 1 | Negative Control | | 0.81 | 30 | 3.6 |
| | | DMNA | 100 mg | 2.50 | 741 | 28.6 |
| | | Sodium acid pyrophosphate | 14 mg | 0.78 | 45 | 6.5 |
| | | | 140 mg | 0.71 | 41 | 5.7 |
| Multiple Treatment (5 doses) | 2 | Negative Control | | 2.94 | 75 | 3.1 |
| | | DMNA | 100 mg | 2.77 | 1631 | 61 |
| | | Sodium acid pyrophosphate | 14 mg | 2.99 | 79 | 2.6 |
| | | | 1400 mg | 2.64 | 64 | 2.7 |
| | 1 | Negative Control | | 3.37 | 212 | 6.8 |
| | | Sodium acid pyrophosphate | 14 mg | 3.93 | 229 | 6.2 |
| | | | 140 mg | 4.69 | 213 | 4.6 |
| | | | 1400 mg | 3.58 | 198 | 5.5 |
| | 2 | Negative Control | | 1.64 | 61 | 4.2 |
| | | Sodium acid pyrophosphate | 14 mg | 1.94 | 81 | 4.7 |
| | | | 140 mg | 2.29 | 71 | 3.1 |
| | | | 1400 mg | 2.32 | 80 | 3.5 |

Table 2
 SUMMARY OF HOST-MEDIATED ASSAYS WITH
SACCHAROMYCES CEREVISIAE D3

| Regimen | Compound | Dose/kg | Avg CFU per ml (X 10 ³) | Avg His ⁺ Revertants per ml | His ⁺ Revertants per 10 ⁶ CFU |
|------------------------------|---------------------------|---------|--|--|---|
| Single Treatment | Negative Control | | 1.87 | 1.2 | 7.4 |
| | EMS (Positive Control) | 350 mg | 2.45 | 12.6 | 41.5 |
| | | 14 mg | 2.27 | 1.7 | 7.5 |
| | | 140 mg | 1.71 | 1.1 | 6.6 |
| | | 1400 mg | 1.88 | 1.1 | 7.3 |
| Multiple Treatment (5 doses) | Negative Control | | 1.83 | 1.25 | 7.0 |
| | Sodium acid pyrophosphate | 124 mg | 1.45 | 1.3 | 8.4 |
| | | 140 mg | 1.76 | 1.2 | 8.4 |
| | | 1400 mg | 2.13 | 1.25 | 6.5 |

Table 3
HOST-MEDIATED ASSAY WITH SAFMONELLA TYPHIMURIUM TA1530

The mice were given a single oral dose of sodium acid pyrophosphate. The positive control, DMNA, was given intramuscularly.

| Experiment Number | Compound | Dose/kg | Mouse Number | CFU/ml (X 10 ⁻⁹) | <u>His</u> ⁺ Revertants per ml | <u>His</u> ⁺ Revertants per 10 ⁸ CFU |
|-------------------|----------------------------|---------|--------------|------------------------------|---|--|
| 1 | Negative Control | | 1 | 0.58 | 18 | 3.1 |
| | | | 2 | 0.64 | 18 | 2.8 |
| | | | 3 | 1.38 | 58 | 4.2 |
| | | | 4 | 0.71 | 29 | 4.1 |
| | | | 5 | 0.17 | 6 | 3.5 |
| | | | 6 | 1.07 | 38 | 3.6 |
| | | | 7 | 1.11 | 43 | 3.7 |
| | | | Avg | 0.81 | 30 | 3.6 |
| | DMNA (Positive Control) | 100 mg | 1 | 1.93 | 328 | 16.9 |
| | | | 2 | 2.87 | 591 | 20.6 |
| | | | 3 | 3.03 | 572 | 18.9 |
| | | | 4 | 2.20 | 1028 | 46.7 |
| | | | 5 | 3.02 | 1667 | 55.2 |
| | | | 6 | 1.93 | 258 | 13.4 |
| | | | Avg | 2.50 | 741 | 28.6 |
| | Sodium acid pyrophosphate | 14 mg | 1 | 1.37 | 46 | 3.4 |
| | | | 2 | 0.83 | 63 | 7.6 |
| | | | 3 | 0.73 | 44 | 6.0 |
| | | | 4 | 0.14 | 14 | 10 |
| | | | 5 | 1.02 | 67 | 6.6 |
| | | | 6 | 0.60 | 33 | 5.5 |
| | | | Avg | 0.78 | 45 | 6.5 |
| | | 140 mg | 1 | 0.94 | 73 | 7.8 |
| | | | 2 | 0.45 | 24 | 5.3 |
| | | | 3 | 0.61 | 46 | 7.2 |
| | | | 4 | 0.67 | 39 | 5.8 |
| | | | 5 | 0.90 | 63 | 7.0 |
| | | | 6 | 0.68 | 29 | 4.3 |
| | | | 7 | 0.71 | 16 | 2.3 |
| | | | Avg | 0.71 | 41 | 5.7 |

Table 3 (concluded)

HOST-MEDIATED ASSAY WITH SALMONELLA TYPHIMURIUM TA1530

The mice were given a single oral dose of sodium acid pyrophosphate. The positive control, DMNA, was given intramuscularly.

| Experiment Number | Compound | Dose/kg | Mouse Number | CFU/ml (X 10 ⁻³) | <u>His</u> ⁺ Revertants per ml | <u>His</u> ⁺ Revertants per 10 ³ CFU |
|----------------------------|------------------|---------|--------------|------------------------------|---|--|
| 2 | Negative Control | | 1 | 0.74 | 38 | 5.1 |
| | | | 2 | 1.96 | 73 | 3.7 |
| | | | 3 | 3.30 | 78 | 2.4 |
| | | | 4 | 2.60 | 91 | 3.5 |
| | | | 5 | 2.79 | 57 | 2.0 |
| | | | 6 | 3.35 | 41 | 1.2 |
| | | | 7 | 3.15 | 86 | 2.7 |
| | | | 8 | 3.12 | 116 | 3.7 |
| | | | 9 | 2.83 | 94 | 3.3 |
| | | | Avg | 2.65 | 75 | 3.1 |
| DMNA (Positive Control) | 100 mg | | 1 | 3.10 | 1410 | 45 |
| | | | 2 | 2.65 | 2008 | 76 |
| | | | 3 | 3.35 | 1680 | 50 |
| | | | 4 | 3.58 | 1550 | 43 |
| | | | 5 | 2.23 | 2238 | 100 |
| | | | 6 | 1.72 | 900 | 52 |
| | | | Avg | 2.77 | 1631 | 61 |
| Sodium acid pyrophosphate | 14 mg | | 1 | 3.45 | 104 | 3.0 |
| | | | 2 | 1.82 | 38 | 2.1 |
| | | | 3 | 3.25 | 63 | 1.9 |
| | | | 4 | 2.77 | 79 | 2.9 |
| | | | 5 | 2.90 | 78 | 2.7 |
| | | | 6 | 3.75 | 110 | 2.9 |
| | | | Avg | 2.99 | 79 | 2.6 |
| | 1400 mg | | 1 | 3.17 | 50 | 1.6 |
| | | | 2 | 2.75 | 66 | 2.4 |
| | | | 3 | 2.70 | 55 | 2.0 |
| | | | 4 | 1.33 | 61 | 4.6 |
| | | | 5 | 2.67 | 82 | 3.1 |
| | | | 6 | 1.78 | 63 | 3.5 |
| | | | 7 | 3.40 | 72 | 2.1 |
| | | | 8 | 3.33 | 65 | 2.0 |
| | | | Avg | 2.64 | 64 | 2.7 |

Table 4
HOST-MEDIATED ASSAY WITH SALMONELLA TYPHIMURIUM TA1530

The mice were given sodium acid pyrophosphate at the doses indicated for five consecutive days.

| Experiment Number | Compound | Dose/kg | Mouse Number | CFU/ml (X 10 ⁻⁹) | <u>His</u> ⁺ Revertants per ml | <u>His</u> ⁺ Revertants per 10 ⁸ CFU |
|-------------------|---------------------------|---------|--------------|------------------------------|---|--|
| 1 | Negative Control | | 1 | 4.20 | 205 | 4.9 |
| | | | 2 | 4.55 | 208 | 4.6 |
| | | | 3 | 3.48 | 263 | 7.6 |
| | | | 4 | 2.00 | 211 | 10.6 |
| | | | 5 | 3.50 | 200 | 5.7 |
| | | | 6 | 2.18 | 183 | 8.4 |
| | | | 7 | 3.67 | 217 | 5.9 |
| | | | Avg | 3.37 | 212 | 6.8 |
| 2 | Sodium acid pyrophosphate | 14 mg | 1 | 6.75 | 277 | 4.1 |
| | | | 2 | 4.25 | 248 | 5.8 |
| | | | 3 | 4.50 | 243 | 5.4 |
| | | | 4 | 3.18 | 188 | 5.9 |
| | | | 5 | 2.27 | 196 | 8.6 |
| | | | 6 | 3.15 | 233 | 7.4 |
| | | | 7 | 3.44 | 218 | 6.3 |
| | | 140 mg | Avg | 3.93 | 229 | 6.2 |
| | | | 1 | 5.65 | 265 | 4.7 |
| | | | 2 | 4.28 | 173 | 4.0 |
| | | | 3 | 5.15 | 205 | 4.0 |
| | | 1400 mg | 4 | 3.67 | 208 | 5.7 |
| | | | Avg | 4.69 | 213 | 4.6 |
| | | | 1 | 3.85 | 212 | 5.5 |
| | | | 2 | 3.10 | 157 | 5.1 |
| | | | 3 | 3.80 | 225 | 5.9 |
| | | | Avg | 3.58 | 198 | 5.5 |
| | | | 1 | 2.58 | 89 | 3.4 |
| | | | 2 | 1.36 | 32 | 2.4 |
| | | | 3 | 0.53 | 34 | 6.4 |
| | | | 4 | 1.77 | 68 | 3.8 |
| | | | 5 | 2.00 | 84 | 4.2 |
| | | | Avg | 1.64 | 61 | 4.0 |

Table 4 (Concluded)

HOST-MEDIATED ASSAY WITH SALMONELLA TYPHIMURIUM TA1530

The mice were given sodium acid pyrophosphate at the doses indicated for five consecutive days.

| Experiment Number | Compound | Dose/kg | Mouse Number | CFU/ml (X 10 ⁻⁹) | <u>His</u> ⁺ Revertants per ml | <u>His</u> ⁺ Revertants per 10 ³ CFU |
|---------------------------|----------|---------|--------------|------------------------------|---|--|
| Sodium acid pyrophosphate | 14 mg | | 1 | 2.92 | 90 | 3.1 |
| | | | 2 | 1.49 | 123 | 8.3 |
| | | | 3 | 0.77 | 26 | 3.4 |
| | | | 4 | 3.33 | 105 | 3.2 |
| | | | 5 | 1.18 | 62 | 5.3 |
| | | Avg | | 1.94 | 81 | 4.7 |
| | 140 mg | | 1 | 2.67 | 87 | 3.2 |
| | | | 2 | 2.43 | 63 | 2.6 |
| | | | 3 | 1.85 | 55 | 3.0 |
| | | | 4 | 2.90 | 90 | 3.1 |
| | | | 5 | 1.60 | 58 | 3.6 |
| | | Avg | | 2.29 | 71 | 3.1 |
| | 1400 mg | | 1 | 1.83 | 83 | 4.5 |
| | | | 2 | 1.47 | 61 | 4.1 |
| | | | 3 | 3.25 | 116 | 3.6 |
| | | | 4 | 2.63 | 72 | 2.7 |
| | | | 5 | 2.44 | 66 | 2.7 |
| | | Avg | | 2.32 | 80 | 3.5 |

Table 5
HOST-MEDIATED ASSAY WITH SACCHAROMYCES CEREVISIAE D?

The mice were given a single oral dose of sodium acid pyrophosphate. The positive control, EMS, was given intramuscularly.

| Compound | Dose/kg | Mouse Number | CFU/ml (X 10 ⁷) | Ade ⁻ Recombinants per ml(X 10 ³) | Ade ⁻ Recombinants per 10 ⁵ CFU |
|---------------------------|---------|--------------|-----------------------------|--|---|
| Negative Control | | 1 | 0.81 | 1.0 | 12.3 |
| | | 2 | 1.61 | 1.0 | 6.2 |
| | | 3 | 1.40 | 1.5 | 10.7 |
| | | 4 | 2.30 | 1.5 | 6.5 |
| | | 5 | 2.08 | 1.0 | 4.8 |
| | | 6 | 3.67 | 1.5 | 4.1 |
| | | 7 | 1.28 | 0.5 | 3.9 |
| | | 8 | 2.90 | 1.5 | 5.2 |
| | | 9 | 0.75 | 1.0 | 13.3 |
| | | Avg | 1.87 | 1.2 | 7.4 |
| EMS (Positive Control) | 350 mg | 1 | 0.92 | 5.5 | 59.6 |
| | | 2 | 2.20 | 11 | 50 |
| | | 3 | 1.90 | 5.0 | 26.3 |
| | | 4 | 2.48 | 26.5 | 82.7 |
| | | 5 | 3.38 | 13 | 38.4 |
| | | 6 | 3.37 | 22.5 | 66.8 |
| | | 7 | 3.05 | 9.0 | 29.5 |
| | | 8 | 3.07 | 21 | 68.5 |
| | | 9 | 1.68 | 6.0 | 35.5 |
| | | Avg | 2.45 | 12.6 | 41.5 |
| Sodium acid pyrophosphate | 14 mg | 1 | 1.88 | 1.5 | 8.0 |
| | | 2 | 3.02 | 2.5 | 8.3 |
| | | 3 | 1.18 | 1.0 | 8.5 |
| | | 4 | 3.82 | 3.0 | 7.9 |
| | | 5 | 2.28 | 1.5 | 6.6 |
| | | 6 | 2.06 | 1.5 | 7.3 |
| | | 7 | 1.69 | 1.0 | 5.9 |
| | | Avg | 2.27 | 1.7 | 7.5 |
| 140 mg | 140 mg | 1 | 1.18 | 0.5 | 4.2 |
| | | 2 | 1.50 | 1.0 | 6.7 |
| | | 3 | 2.18 | 1.5 | 6.9 |
| | | 4 | 2.25 | 1.5 | 6.7 |
| | | 5 | 0.50 | 0.5 | 10 |
| | | 6 | 1.58 | 1.0 | 6.3 |
| | | 7 | 1.33 | 1.0 | 7.5 |
| | | 8 | 3.16 | 1.5 | 4.7 |
| | | Avg | 1.71 | 1.1 | 6.6 |

Table 5 (Concluded)

HOST-MEDIATED ASSAY WITH SACCHAROMYCES CEREVISIAE D3

The mice were given a single oral dose of sodium acid pyrophosphate. The positive control, EMS, was given intramuscularly.

| Compound | Dose/kg | Mouse Number | CFU/ml (X 10 ⁷) | <u>Ade</u> ⁻ Recombinants per ml(X 10 ³) | <u>Ade</u> ⁻ Recombinants per 10 ⁶ CFU |
|---------------------------|---------|--------------|-----------------------------|---|--|
| Sodium acid pyrophosphate | 1400 mg | 1 | 4.20 | 2.0 | 4.8 |
| | | 2 | 0.69 | 1.0 | 14.6 |
| | | 3 | 1.15 | 1.0 | 8.7 |
| | | 4 | 1.88 | 0.5 | 2.6 |
| | | 5 | 1.33 | 1.0 | 7.4 |
| | | 6 | 3.25 | 1.5 | 4.6 |
| | | 7 | 0.60 | 0.5 | 8.3 |
| | | Avg | 1.88 | 1.1 | 7.3 |

Table 6
HOST-MEDIATED ASSAY WITH *SACCHAROMYCES CEREVISIAE* D3

The mice were given sodium acid pyrophosphate at the doses indicated for five consecutive days.

| Compound | Dose/kg | Mouse Number | CFU/ml (X 10 ⁻⁷) | <u>Ade</u> Recombinants per ml(X 10 ³) | <u>Ade</u> Recombinants per 10 ⁶ CFU |
|---------------------------|---------|--------------|------------------------------|--|---|
| Negative Control | | 1 | 3.42 | 3.0 | 8.8 |
| | | 2 | 2.02 | 0.5 | 2.5 |
| | | 3 | 2.45 | 1.5 | 6.1 |
| | | 4 | 1.53 | 1.0 | 6.5 |
| | | 5 | 1.70 | 1.5 | 8.8 |
| | | 6 | 1.15 | 0.5 | 4.3 |
| | | 7 | 1.56 | 1.0 | 6.4 |
| | | 8 | 0.81 | 1.0 | 12.3 |
| | | Avg | 1.83 | 1.25 | 7.0 |
| Sodium acid pyrophosphate | 14 mg | 1 | 1.37 | 1.0 | 7.3 |
| | | 2 | 1.72 | 2.0 | 11.6 |
| | | 3 | 1.27 | 1.5 | 11.8 |
| | | 4 | 2.22 | 2.0 | 9.0 |
| | | 5 | 1.58 | 1.0 | 6.3 |
| | | 6 | 1.20 | 1.5 | 12.5 |
| | | 7 | 0.81 | 0 | |
| | | Avg | 1.45 | 1.3 | 8.4 |
| | 140 mg | 1 | 1.22 | 2.0 | 16.4 |
| | | 2 | 1.60 | 0.5 | 3.1 |
| | | 3 | 1.85 | 1.5 | 8.1 |
| | | 4 | 2.83 | 1.5 | 5.3 |
| | | 5 | 1.65 | 1.0 | 6.1 |
| | | 6 | 0.35 | 0.5 | 14.3 |
| | | 7 | 2.85 | 1.5 | 5.3 |
| | | Avg | 1.76 | 1.2 | 8.4 |
| | 1400 mg | 1 | 3.72 | 1.5 | 4.0 |
| | | 2 | 2.89 | 2.0 | 6.9 |
| | | 3 | 1.85 | 1.5 | 8.1 |
| | | 4 | 0.77 | 0.5 | 6.5 |
| | | 5 | 0.52 | 0.5 | 9.6 |
| | | 6 | 3.35 | 1.5 | 4.5 |
| | | 7 | 1.67 | 1.0 | 6.0 |
| | | 8 | 2.25 | 1.5 | 6.7 |
| | | Avg | 2.13 | 1.25 | 6.5 |

Table 7

IN VITRO ASSAYS OF SODIUM ACID PYROPHOSPHATE WITH
4 STRAINS OF SALMONELLA TYPHIMURIUM

| Experiment Number | Compound | Amount added/plate | Metabolic Activation | His ⁺ Revertants per Plate | | | | |
|-------------------|--|--------------------|----------------------|---------------------------------------|--------|--------|--------|--------|
| | | | | TA1530 | TA1535 | TA1536 | TA1537 | TA1538 |
| 1 | Negative Control | | - | 19 | 2 | 22 | 16 | |
| | | | + | 31 | 3 | 7 | 11 | |
| 2 | 2-Fluorenamine | 5 µg | - | | | | 31 | |
| | | | + | | | | 1300 | |
| 2 | Sodium acid pyrophosphate | 100 mg | - | 12 | 3 | 8 | 40 | |
| | | | + | 24 | 0 | 12 | 26 | |
| 2 | Negative Control | | - | 10 | | | 4 | |
| | | | + | 22 | | | 7 | |
| 2 | 4-o-Tolylazo-o-toluidine | 25 mg | - | | | | 8 | |
| | | | + | | | | 132 | |
| 2 | N-Methyl-N'-nitro-N-nitrosoguanidine (crystal added to center of plate) | | - | * | | | * | |
| | | | + | * | | | - | |
| 2 | Ethyl methane sulfonate (10 µl added to 6 mm sterile filter disc) | | - | * | | | - | |
| | | | + | * | | | - | |
| 2 | Dimethylnitrosamine (10 µl added to 6 mm sterile filter disc) | | - | - | | | - | |
| | | | + | - | | | - | |
| 2 | Sodium acid pyrophosphate | 100 mg | - | 8 | | | 3 | |
| | | | + | 18 | | | 5 | |

* + indicates a ring of mutants around the spot where the chemical was added.

- indicates no ring of mutants.

Table 8

IN VITRO ASSAY OF SODIUM ACID PYROPHOSPHATE WITH
SACCHAROMYCES CEREVISIAE D3

| Compound | Percent Concentration (w/v or v/v) | CFU (x 10 ⁷) | Ade Recombinants (x 10 ³) | Percent Survivors | Ade Recombinants per 10 ⁵ CFU |
|------------------------------|--|-----------------------------|---|----------------------|---|
| Negative Control | | 8.17 | 4.5 | 100% | 5.1 |
| EMS (Positive Control) | 1 | 4.80 | 119 | 59 | 248 |
| Sodium acid pyrophosphate | 5 | 5.75 | 5.0 | 70 | 8.7 |

DOMINANT LETHAL STUDY - RAT

TABLE 9

AVERAGE IMPLANTATIONS PER PREGNANT FEMALE

| WEEK | CONTROL | 71-61 .0072 G/KG | | 71-61 .072 G/KG | | 71-61 .72 G/KG | | COMPOUND FDA NO | SODIUM ACID PYROPHOSPHATE 71-61 | TEM .2 MG/KG |
|--------------------|---------------|------------------|------------|------------------|-----------|------------------|----------|--------------------|------------------------------------|-----------------|
| | | 71-61 | .0072 G/KG | 71-61 | .072 G/KG | 71-61 | .72 G/KG | | | |
| SINGLE TREATMENT | | | | | | | | | | |
| 1 | 218/ 19=11.47 | 174/ 16=10.87 | | 213/ 19=11.21 | | 179/ 18= 9.94 * | | 111/ 14= 7.93 ** | | |
| 2 | 209/ 20=10.45 | 238/ 20=11.90 | | 239/ 20=11.95 | | 217/ 19=11.42 | | 28/ 9= 3.11 ** | | |
| 3 | 244/ 20=12.20 | 246/ 19=12.95 | | 244/ 20=12.20 | | 237/ 20=11.85 | | 43/ 17= 2.53 ** | | |
| 4 | 225/ 19=11.84 | 264/ 20=13.20 | | 248/ 19=13.05 | | 219/ 18=12.17 | | 55/ 12= 4.58 ** | | |
| 5 | 236/ 19=12.42 | 237/ 20=11.85 | | 263/ 20=13.15 | | 200/ 17=11.76 | | 196/ 19=10.32 * | | |
| 6 | 228/ 20=11.40 | 229/ 20=11.45 | | 220/ 19=11.58 | | 177/ 17=10.41 | | 246/ 20=12.30 | | |
| 7 | 195/ 19=10.26 | 231/ 20=11.55 | | 247/ 20=12.35 *I | | 237/ 19=12.47 *I | | 210/ 20=10.50 | | |
| 8 | 200/ 17=11.76 | 259/ 20=12.95 | | 238/ 20=11.90 | | 215/ 18=11.94 | | 215/ 19=11.32 | | |
| MULTIPLE TREATMENT | | | | | | | | | | |
| 1 | 252/ 20=12.60 | 239/ 19=12.58 | | 236/ 19=12.42 | | 206/ 17=12.12 | | | | |
| 2 | 235/ 19=12.37 | 256/ 20=12.80 | | 240/ 20=12.00 | | 184/ 15=12.27 | | | | |
| 3 | 234/ 19=12.32 | 257/ 20=12.85 | | 249/ 20=12.45 | | 226/ 18=12.56 | | | | |
| 4 | 235/ 20=11.75 | 235/ 20=11.75 | | 231/ 20=11.55 | | 188/ 17=11.06 | | | | |
| 5 | 234/ 19=12.32 | 228/ 20=11.40 | | 249/ 20=12.45 | | 216/ 19=11.37 | | | | |
| 6 | 224/ 20=11.20 | 236/ 20=11.80 | | 236/ 20=11.80 | | 212/ 19=11.16 | | | | |
| 7 | 264/ 20=13.20 | 254/ 20=12.70 | | 245/ 20=12.25 | | 221/ 19=11.63 * | | | | |

* SIGNIFICANT AT P LT 0.05

** SIGNIFICANT AT P LT 0.01

I INCREASED ABOVE CONTROL

DOMINANT LETHAL STUDY - RAT

TABLE 10

AVERAGE DEAD IMPLANTS PER PREGNANT FEMALE

| WEEK | CONTROL | 71-61 .0072 G/KG | | 71-61 .072 G/KG | | 71-61 .72 G/KG | | TEM | .2 MG/KG |
|--------------------|--------------|--------------------|------------------------------------|--------------------|------------------------------------|--------------------|------------------------------------|-----|----------|
| | | COMPOUND FDA NO | SODIUM ACID PYROPHOSPHATE 71-61 | COMPOUND FDA NO | SODIUM ACID PYROPHOSPHATE 71-61 | COMPOUND FDA NO | SODIUM ACID PYROPHOSPHATE 71-61 | | |
| SINGLE TREATMENT | | | | | | | | | |
| 1 | 38/ 19= 2.00 | 18/ 16= 1.13 | 21/ 19= 1.11 | 21/ 18= 1.17 | 85/ 14= 6.07 ** | | | | |
| 2 | 10/ 20= .50 | 15/ 20= .75 | 15/ 20= .75 | 18/ 19= .45 | 28/ 9= 3.11 ** | | | | |
| 3 | 28/ 20= 1.40 | 17/ 19= .89 | 20/ 20= 1.00 | 16/ 20= .80 | 32/ 17= 1.68 | | | | |
| 4 | 30/ 19= 1.58 | 13/ 20= .65 | 32/ 19= 1.68 | 25/ 18= 1.39 | 26/ 12= 2.17 | | | | |
| 5 | 16/ 19= .84 | 11/ 20= .55 | 38/ 20= 1.90 | 16/ 17= .94 | 163/ 19= 8.58 ** | | | | |
| 6 | 26/ 20= 1.30 | 9/ 20= .45 D | 10/ 19= .53 | 9/ 17= .53 | 49/ 20= 2.45 | | | | |
| 7 | 26/ 19= 1.37 | 12/ 20= .60 | 21/ 20= 1.05 | 8/ 19= .42 | 17/ 20= .85 | | | | |
| 39 | 8/ 17= .41 | 15/ 20= .75 | 13/ 20= .65 | 19/ 18= 1.06 | 28/ 19= 1.47 * | | | | |
| MULTIPLE TREATMENT | | | | | | | | | |
| 1 | 25/ 20= 1.25 | 11/ 19= .58 | 18/ 19= .95 | 8/ 17= .47 | | | | | |
| 2 | 23/ 19= 1.21 | 21/ 20= 1.05 | 25/ 20= 1.25 | 12/ 15= .80 | | | | | |
| 3 | 15/ 19= .79 | 12/ 20= .60 | 21/ 20= 1.05 | 18/ 18= 1.00 | | | | | |
| 4 | 34/ 20= 1.70 | 14/ 20= .70 | 25/ 20= 1.25 | 12/ 17= .71 | | | | | |
| 5 | 19/ 19= 1.00 | 10/ 20= .50 | 20/ 20= 1.00 | 14/ 19= .74 | | | | | |
| 6 | 16/ 20= .80 | 19/ 20= .95 | 7/ 20= .35 | 26/ 19= 1.37 | | | | | |
| 7 | 11/ 20= .55 | 14/ 20= .70 | 6/ 20= .30 | 12/ 19= .63 | | | | | |

* SIGNIFICANT AT P LT 0.05

** SIGNIFICANT AT P LT 0.01

D DECREASED BELOW CONTROL

DOMINANT LETHAL STUDY - RAT

TABLE 11
DEAD IMPLANTS/TOTAL IMPLANTS

| WEEK | CONTROL | 71-61 .0072 G/KG | | 71-61 .072 G/KG | | 71-61 .72 G/KG | | TEM .2 MG/KG |
|--------------------|--------------|---------------------------|------------------------------------|--------------------------|------------------------------------|----------------|------------------------------------|--------------|
| | | FDA NO | SODIUM ACID PYROPHOSPHATE 71-61 | FDA NO | SODIUM ACID PYROPHOSPHATE 71-61 | FDA NO | SODIUM ACID PYROPHOSPHATE 71-61 | |
| SINGLE TREATMENT | | | | | | | | |
| 1 | 38/ 218= .17 | 18/ 174= .10 | 21/ 213= .10 | 21/ 179= .12 | 85/ 111= .77 ** | | | |
| 2 | 10/ 209= .05 | 15/ 238= .06 | 15/ 239= .06 | 18/ 217= .08 | 28/ 28= 1.00 ** | | | |
| 3 | 28/ 244= .11 | 17/ 246= .07 | 20/ 244= .08 | 16/ 237= .07 | 32/ 43= .74 ** | | | |
| 4 | 30/ 225= .13 | 13/ 264= .05 ^b | 32/ 248= .13 | 25/ 219= .11 | 26/ 55= .47 ** | | | |
| 5 | 16/ 236= .07 | 11/ 237= .05 | 38/ 263= .14 | 16/ 200= .08 | 163/ 196= .83 ** | | | |
| 6 | 26/ 228= .11 | 9/ 229= .04 | 10/ 220= .05 | 9/ 177= .05 | 49/ 246= .20 | | | |
| 7 | 26/ 195= .13 | 12/ 231= .05 | 21/ 247= .09 | 8/ 237= .03 ^b | 17/ 210= .08 | | | |
| 8 | 7/ 200= .03 | 15/ 259= .06 | 13/ 238= .05 | 19/ 215= .09 | 28/ 215= .13 * | | | |
| MULTIPLE TREATMENT | | | | | | | | |
| 1 | 25/ 252= .10 | 11/ 239= .05 | 18/ 236= .08 | 8/ 206= .04 | | | | |
| 2 | 23/ 235= .10 | 21/ 256= .08 | 25/ 240= .10 | 12/ 184= .07 | | | | |
| 3 | 15/ 234= .06 | 12/ 257= .05 | 21/ 249= .08 | 18/ 226= .08 | | | | |
| 4 | 34/ 235= .14 | 14/ 235= .06 ^b | 25/ 231= .11 | 12/ 188= .06 | | | | |
| 5 | 19/ 234= .08 | 10/ 228= .04 | 20/ 249= .08 | 14/ 216= .06 | | | | |
| 6 | 16/ 224= .07 | 19/ 236= .08 | 7/ 236= .03 | 26/ 212= .12 | | | | |
| 7 | 11/ 264= .04 | 14/ 254= .06 | 6/ 245= .02 | 12/ 221= .05 | | | | |

* SIGNIFICANT AT P LT 0.05

** SIGNIFICANT AT P LT 0.01

^b DECREASED BELOW CONTROL

DOMINANT LETHAL STUDY - RAT

TABLE 13

AVERAGE PREGNANCY LOSS PER PREGNANT FEMALE

| WEEK | CONTROL | 71-61 .0072 G/KG | 71-61 .072 G/KG | 71-61 .72 G/KG | COMPOUND | SODIUM ACID PYROPHOSPHATE | |
|--------------------|-----------------|------------------|-----------------|----------------|------------------|---------------------------|----------|
| | | | | | FDA NO | 71-61 | .2 MG/KG |
| SINGLE TREATMENT | | | | | | | |
| 1 | 29/ 19± 1.53 | 19/ 16± 1.19 | 23/ 19± 1.21 | 35/ 18± 1.94 | 61/ 14± 4.36 ** | | |
| 2 | 63/ 26± 3.15 | 26/ 20± 1.30 | 15/ 20± .75 * D | 33/ 19± 1.74 | 81/ 9± 9.00 ** | | |
| 3 | 29/ 20± 1.45 | 16/ 19± .84 | 12/ 20± .60 | 32/ 20± 1.60 | 157/ 17± 9.24 ** | | |
| 4 | 38/ 19± 2.00 | 30/ 20± 1.50 | 39/ 19± 2.05 | 29/ 18± 1.61 | 114/ 12± 9.50 ** | | |
| 5 | 23/ 19± 1.21 | 32/ 20± 1.60 | 16/ 20± .80 | 27/ 17± 1.59 | 70/ 19± 3.68 * | | |
| 6 | 30/ 20± 1.50 | 20/ 20± 1.00 | 28/ 19± 1.47 | 39/ 17± 2.29 | 21/ 20± 1.05 | | |
| 7 | 41/ 19± 2.16 | 25/ 20± 1.25 | 26/ 20± 1.30 | 16/ 19± .84 | 52/ 20± 2.60 | | |
| 42 | 8/ 23/ 17± 1.35 | 16/ 20± .80 | 32/ 20± 1.60 | 38/ 18± 2.11 | 43/ 19± 2.26 | | |
| MULTIPLE TREATMENT | | | | | | | |
| 1 | 12/ 26± .60 | 21/ 19± 1.11 | 22/ 19± 1.16 | 21/ 17± 1.24 | | | |
| 2 | 14/ 19± .74 | 24/ 20± 1.20 | 25/ 20± 1.25 | 19/ 15± 1.27 | | | |
| 3 | 11/ 19± .58 | 16/ 20± .80 | 33/ 20± 1.65 | 26/ 18± 1.44 | | | |
| 4 | 31/ 20± 1.55 | 36/ 20± 1.80 | 26/ 20± 1.30 | 37/ 17± 2.18 | | | |
| 5 | 26/ 19± 1.37 | 23/ 20± 1.15 | 19/ 20± .95 | 27/ 19± 1.42 | | | |
| 6 | 30/ 20± 1.50 | 19/ 20± .95 | 28/ 20± 1.40 | 48/ 19± 2.53 | | | |
| 7 | 15/ 26± .75 | 15/ 20± .75 | 19/ 20± .95 | 56/ 19± 2.95 * | | | |

* SIGNIFICANT AT P LT 0.05

** SIGNIFICANT AT P LT 0.01

D DECREASED BELOW CONTROL

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

TABLE 14

CHI-SQUARE TEST OF THE FERTILITY INDEX (1 DEGREE OF FREEDOM)

| WEEK | VEHICLE CONTROL | | | | 71-61 .0072 G/KG | | | | 71-61 .072 G/KG | | | | 71-61 .72 G/KG | | | | TEM .2 MG/KG | | | | |
|--------------------|-----------------|----------|----------------|-------|------------------|----------|----------------|-------|-----------------|----------|----------------|-------|----------------|----------|----------------|-------|--------------|----------|----------------|----------|-----|
| | N PRG | N MTD | FERT. INDEX | CHISQ | N PRG | N MTD | FERT. INDEX | CHISQ | N PRG | N MTD | FERT. INDEX | CHISQ | N PRG | N MTD | FERT. INDEX | CHISQ | N PRG | N MTD | FERT. INDEX | CHISQ | |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| SINGLE TREATMENT | | | | | | | | | | | | | | | | | | | | | |
| 1 | 19 | 20 | .95 | 0.00 | 16 | 20 | .80 | .91 | 19 | 20 | .95 | .53 | 18 | 20 | .90 | 0.00 | 14 | 20 | .70 | 2.77 | |
| 2 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | 0.00 | 9 | 20 | .45 | 12.54 ** | |
| 3 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 17 | 20 | .85 | 1.44 | |
| 4 | 19 | 20 | .95 | 0.00 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | .53 | 18 | 20 | .90 | 0.00 | 12 | 20 | .60 | 5.16 * | |
| 5 | 19 | 20 | .95 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 17 | 20 | .85 | .28 | 19 | 20 | .95 | .53 | |
| 6 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | 0.00 | 17 | 20 | .85 | 1.44 | 20 | 20 | 1.00 | 0.00 | |
| 7 | 19 | 20 | .95 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | .53 | 20 | 20 | 1.00 | 0.00 | |
| 43 | 8 | 17 | 20 | .85 | 0.00 | 20 | 20 | 1.00 | 1.44 | 20 | 20 | 1.00 | 1.44 | 18 | 20 | .90 | 0.00 | 19 | 20 | .95 | .28 |
| MULTIPLE TREATMENT | | | | | | | | | | | | | | | | | | | | | |
| 1 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | 0.00 | 19 | 20 | .95 | 0.00 | 17 | 20 | .85 | 1.44 | | | | | |
| 2 | 19 | 20 | .95 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 15 | 20 | .75 | 1.76 | | | | | |
| 3 | 19 | 20 | .95 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 18 | 20 | .90 | 0.00 | | | | | |
| 4 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 17 | 20 | .85 | 1.44 | | | | | |
| 5 | 19 | 20 | .95 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | .53 | | | | | |
| 6 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | 0.00 | | | | | |
| 7 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 20 | 20 | 1.00 | 0.00 | 19 | 20 | .95 | 0.00 | | | | | |

* SIGNIFICANT AT P LT 0.05

** SIGNIFICANT AT P LT 0.01

DOMESTIC LETHAL STUDY OF COMPOUND 71-61 SODIUM ACID PYROPHOSPHATE

TABLE 15
CHI-SQUARE TEST OF THE DEATH INDEX (1 DEGREE OF FREEDOM)

| WEEK | VEHICLE CONTROL | | | | 71-61 .0072 G/KG | | | | 71-61 .072 G/KG | | | | 71-61 .72 G/KG | | | | TEM .2 MG/KG | | | |
|--------------------|-----------------|-----|-------|-------|------------------|-----|-------|--------|-----------------|-----|-------|-------|----------------|-----|-------|--------|--------------|-----|-------|----------|
| | N | N | DEATH | WDI | N | N | DEATH | WDI | N | N | DEATH | WDI | N | N | DEATH | WDI | N | N | DEATH | WDI |
| | WDI | PRG | INDEX | CHISQ | WDI | PRG | INDEX | CHISQ | WDI | PRG | INDEX | CHISQ | WDI | PRG | INDEX | CHISQ | WDI | PRG | INDEX | CHISQ |
| SINGLE TREATMENT | | | | | | | | | | | | | | | | | | | | |
| 1 | 14 | 19 | .74 | 0.00 | 8 | 16 | .50 | 1.20 | 14 | 19 | .74 | .14 | 9 | 18 | .50 | 1.31 | 14 | 14 | 1.00 | 2.54 |
| 2 | 7 | 20 | .35 | 0.00 | 9 | 20 | .45 | .10 | 10 | 20 | .50 | .41 | 8 | 19 | .42 | .02 | 9 | 9 | 1.00 | 8.14 ** |
| 3 | 12 | 20 | .60 | 0.00 | 9 | 19 | .47 | .22 | 11 | 20 | .55 | 0.00 | 10 | 20 | .50 | .10 | 17 | 17 | 1.00 | 6.48 * |
| 4 | 11 | 19 | .58 | 0.00 | 7 | 20 | .35 | 1.24 | 13 | 19 | .68 | .11 | 14 | 18 | .78 | .88 | 10 | 12 | .83 | 1.17 |
| 5 | 8 | 19 | .42 | 0.00 | 8 | 20 | .40 | .04 | 10 | 20 | .50 | .03 | 9 | 17 | .53 | .10 | 19 | 19 | 1.00 | 12.79 ** |
| 6 | 12 | 20 | .60 | 0.00 | 8 | 20 | .40 | .90 | 7 | 19 | .37 | 1.27 | 7 | 17 | .41 | .66 | 14 | 20 | .70 | .11 |
| 7 | 10 | 19 | .53 | 0.00 | 6 | 20 | .30 | 1.23 | 10 | 20 | .50 | .02 | 6 | 19 | .32 | .97 | 9 | 20 | .45 | .02 |
| 8 | 5 | 17 | .29 | 0.00 | 7 | 20 | .35 | .00 | 10 | 20 | .50 | .87 | 8 | 18 | .44 | .32 | 11 | 19 | .58 | 1.91 |
| MULTIPLE TREATMENT | | | | | | | | | | | | | | | | | | | | |
| 1 | 10 | 20 | .50 | 0.00 | 7 | 19 | .37 | .26 | 7 | 19 | .37 | .26 | 3 | 17 | .18 | 2.92 | | | | |
| 2 | 7 | 19 | .37 | 0.00 | 11 | 20 | .55 | .67 | 11 | 20 | .55 | .67 | 7 | 15 | .47 | .05 | | | | |
| 3 | 8 | 19 | .42 | 0.00 | 7 | 20 | .35 | .02 | 9 | 20 | .45 | .02 | 8 | 18 | .44 | .04 | | | | |
| 4 | 15 | 20 | .75 | 0.00 | 5 | 20 | .25 | 8.10 * | 9 | 20 | .45 | 2.60 | 5 | 17 | .29 | 5.96 * | | | | |
| 5 | 11 | 19 | .58 | 0.00 | 7 | 20 | .35 | 1.24 | 12 | 20 | .60 | .04 | 5 | 19 | .26 | 2.70 | | | | |
| 6 | 11 | 20 | .55 | 0.00 | 10 | 20 | .50 | 0.00 | 6 | 20 | .30 | 1.64 | 11 | 19 | .58 | .02 | | | | |
| 7 | 9 | 20 | .45 | 0.00 | 7 | 20 | .35 | .10 | 5 | 20 | .25 | .99 | 9 | 19 | .47 | .03 | | | | |

* SIGNIFICANT AT P LT 0.05

** SIGNIFICANT AT P LT 0.01

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--SUMMARY OF BREEDING AND LITTER DATA
 F_0 GENERATION MICE

| <u>Parameter</u> | <u>Control I</u> | <u>Control II</u> | <u>TEM^a I (0.32 mg/l--4 wks)</u> | <u>TEM^a II (0.32 mg/l--2 wks)</u> | <u>71-61^b (140 ppm)</u> | <u>71-61^b (1400 ppm)</u> |
|-------------------------------|------------------|-------------------|---|--|--|---|
| Number of F_0 males | 40 | 40 | 40 | 60 | 40 | 40 |
| Number of F_0 females | 81 | 80 | 81 | 180 | 80 | 80 |
| Number pregnant | 71 | 69 | 11 | 150 | 71 | 73 |
| Percent pregnant | 88 | 86 | 14 | 83 | 89 | 91 |
| Number of nonbreeder males | 1 | 2 | 31 | 3 | 0 | 1 |
| Percent nonbreeders | 2.5 | 5.0 | 77.5 | 5.0 | 0 | 2.5 |
| Average litter size | 10.0 | 10.20 | 2.36 | 7.24 | 9.87 | 9.93 |
| Average number males/litter | 5.15 | 5.39 | 0.73 | 3.71 | 5.58 | 4.75 |
| Average number females/litter | 4.77 | 4.81 | 1.45 | 3.53 | 4.46 | 4.98 |

^aTriethylenemelamine (TEM)

^bSodium Acid Pyrophosphate (71-61)

Tab.

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--MOUSE LITTER SIZE DISTRIBUTION OF YOUNG DERIVED FROM F₀ GENERATION ADULTS

| <u>Litter Size</u> | <u>Control I</u> | <u>Control II</u> | <u>TEM^a I (0.32 mg/l--4 wks)</u> | <u>TEM^a II (0.32 mg/l--2 wks) (0.12 mg/l--2 wks)</u> | <u>71-61^b (140 ppm)</u> | <u>71-61^b (1400 ppm)</u> |
|---------------------------------|------------------|-------------------|---|---|--|---|
| 1 | 0 | 0 | 2 | 2 | 1 | 0 |
| 2 | 0 | 0 | 1 | 3 | 0 | 0 |
| 3 | 0 | 0 | 0 | 3 | 2 | 0 |
| 4 | 0 | 3 | 1 | 9 | 0 | 2 |
| 5 | 1 | 2 | 1 | 10 | 1 | 0 |
| 6 | 4 | 0 | 1 | 16 | 0 | 3 |
| 7 | 5 | 0 | 1 | 29 | 5 | 7 |
| 8 | 6 | 3 | 0 | 19 | 17 | 13 |
| 9 | 8 | 8 | 0 | 23 | 11 | 19 |
| 10 | 15 | 21 | 0 | 16 | 16 | 12 |
| 11 | 13 | 15 | 0 | 6 | 9 | 7 |
| 12 | 9 | 12 | 0 | 6 | 4 | 3 |
| 13 | 3 | 3 | 0 | 1 | 1 | 2 |
| 14 | 4 | 2 | 0 | 1 | 2 | 2 |
| 15 | 2 | 0 | 0 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | 0 | 0 | 0 | 7.54 | 10.01 | 9.93 |
| Mean (μ) | 10.14 | 10.20 | 3.71 | 6.13 | 5.96 | 4.77 |
| Variance (σ^2) | 5.14 | 4.37 | 5.83 | 2.48 | 2.44 | 2.18 |
| Standard deviation (σ) | 2.27 | 2.09 | 2.41 | | | |

^aTriethylenemelamine (TEM)^bSodium acid pyrophosphate (71-61)

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--MOUSE SUMMARY BREEDING DATA OF F₁ GENERATION

| Parameter | Control I | Control II | TEM ^a I (0.32 mg/l--4 wks) | TEM ^a II (0.32 mg/l--2 wks) (0.12 mg/l--2 wks) | 71-61 ^b (140 ppm) | 71-61 ^b (1400 ppm) |
|--|-----------|------------|--|---|---------------------------------|----------------------------------|
| Number of F ₁ males | 97 | 100 | 8 | 112 | 100 | 100 |
| Number of F ₁ females | 297 | 300 | 24 | 336 | 300 | 300 |
| Number of mating plugs | 244 | 267 | 16 | 281 | 253 | 265 |
| Percent mating plugs | 82 | 89 | 67 | 84 | 84 | 88 |
| Number of pregnant females | 256 | 242 | 13 | 268 | 268 | 264 |
| Percent pregnant | 86 | 81 | 54 | 80 | 89 | 88 |
| Number pregnant with mating plugs | 240 | 240 | 12 | 257 | 242 | 249 |
| Percent pregnant with mating plugs | 94 | 99 | 92 | 96 | 81 | 83 |
| Number pregnant without mating plugs | 16 | 2 | 1 | 11 | 26 | 15 |
| Percent pregnant without mating plugs | 6 | 1 | 8 | 4 | 9 | 5 |
| Number of females not pregnant | 41 | 58 | 11 | 68 | 30 | 23 |
| Percent females not pregnant | 14 | 19 | 46 | 20 | 10 | 8 |
| Number not pregnant with mating plugs | 4 | 27 | 4 | 24 | 11 | 13 |
| Percent not pregnant with mating plugs | 10 | 46 | 36 | 35 | 1 | 4 |
| Nonbreeder and sterile males | 5 | 0 | 2 | 3 | 1 | 3 |
| Percent nonbreeder and sterile males | 5 | 0 | 25 | 3 | 1 | 3 |

^aTriethylenemelamine (TEM)

^bSodium acid pyrophosphate (71-61)

T_c

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--MOUSE LITTER SIZE DISTRIBUTION OF YOUNG DERIVED FROM F₁ GENERATION ADULTS

| <u>Litter Size</u> | <u>Control I</u> | <u>Control II</u> | <u>TEM^{a,b} I (0.32 mg/1--4 wks)</u> | <u>TEM^a II (0.32 mg/1--2 wks) (0.12 mg/1--2 wks)</u> | <u>71-61^c (140 ppm)</u> | <u>71-61^c (1400 ppm)</u> |
|---------------------------------|------------------|-------------------|---|---|--|---|
| 1 | 0 | 1 | 4 | 4 | 0 | 2 |
| 2 | 1 | 2 | 3 | 6 | 0 | 2 |
| 3 | 1 | 1 | 2 | 6 | 3 | 0 |
| 4 | 3 | 3 | 8 | 6 | 1 | 1 |
| 5 | 2 | 4 | 4 | 10 | 3 | 1 |
| 6 | 1 | 2 | 4 | 5 | 6 | 4 |
| 7 | 6 | 7 | 1 | 5 | 8 | 6 |
| 8 | 7 | 16 | 1 | 14 | 10 | 15 |
| 9 | 24 | 31 | 1 | 36 | 41 | 27 |
| 10 | 35 | 49 | 2 | 70 | 60 | 46 |
| 11 | 49 | 45 | 4 | 41 | 48 | 62 |
| 12 | 62 | 48 | 4 | 36 | 45 | 52 |
| 13 | 41 | 21 | 0 | 19 | 29 | 25 |
| 14 | 14 | 6 | 0 | 5 | 7 | 14 |
| 15 | 8 | 3 | 0 | 1 | 5 | 6 |
| 16 | 2 | 1 | 0 | 1 | 1 | 1 |
| 17 | 0 | 1 | 0 | 0 | 0 | 0 |
| 18 | 0 | 1 | 0 | 0 | 0 | 0 |
| Mean (μ) | 11.18 | 10.42 | 6.0 | 9.58 | 10.50 | 10.75 |
| Variance (σ^2) | 4.71 | 5.64 | 13.30 | 8.10 | 4.52 | 5.00 |
| Standard deviation (σ) | 2.17 | 2.37 | 3.65 | 2.85 | 2.13 | 2.24 |

^aTriethylenemelamine (TEM)

^bTotal of three matings--9 females per male--8 males

^cSodium acid pyrophosphate (71-61)

Table 20
SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--SUMMARY OF DEAD IMPLANT OCCURRENCE PER F₁ MALE MOUSE

| <u>Parameter</u> | <u>Control I</u> | <u>Control II</u> | <u>TEM^a I (0.32 mg/l--4 wks)</u> | <u>TEM^a II (0.32 mg/l--2 wks) (0.12 mg/l--2 wks)</u> | <u>71-61^b (140 ppm)</u> | <u>71-61^b (1400 ppm)</u> |
|---|------------------|-------------------|---|---|--|---|
| Number of F ₁ males | 99 | 100 | 8 | 112 | 100 | 100 |
| ♂'s having ♀'s with no dead implants | 35 | 40 | 1 | 36 | 35 | 43 |
| ♂'s having ♀'s with 1 dead implant | 29 | 32 | 1 | 41 | 29 | 36 |
| ♂'s having ♀'s with 2 dead implants | 18 | 17 | 0 | 10 | 21 | 11 |
| ♂'s having ♀'s with 3 dead implants | 7 | 5 | 0 | 6 | 10 | 5 |
| ♂'s having ♀'s with 4 dead implants | 2 | 6 | 0 | 4 | 2 | 2 |
| ♂'s having ♀'s with 5 dead implants | 2 | 0 | 0 | 0 | 0 | 0 |
| ♂'s having ♀'s with more than 5 dead implants | 1 | 0 | 4 | 12 | 2 | 0 |

^aTriethylenemelamine (TEM)

^bSodium acid pyrophosphate (71-61)

Tab.

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--SUMMARY OF DEAD IMPLANTS PER PREGNANT FEMALE
(FIRST BREEDING OF FEMALES TO F₁ MALES)

50

| Parameter | Control I | Control II | TEM ^a I (0.32 mg/l--4 wks) | TEM ^a II (0.32 mg/l--2 wks) (0.12 mg/l--2 wks) | 71-61 ^b (140 ppm) | 71-61 ^b (1400 ppm) |
|-----------------------------------|-----------|------------|--|---|---------------------------------|----------------------------------|
| Number of pregnant females | 256 | 242 | 13 | 268 | 268 | 264 |
| ♀s with no dead implants | 175 | 160 | 3 | 160 | 172 | 199 |
| ♀s with 1 dead implant | 61 | 62 | 1 | 64 | 81 | 53 |
| ♀s with 2 dead implants | 14 | 17 | 0 | 14 | 9 | 9 |
| ♀s with 3 dead implants | 4 | 3 | 0 | 7 | 3 | 2 |
| ♀s with 4 dead implants | 1 | 0 | 3 | 5 | 1 | 1 |
| ♀s with 5 dead implants | 1 | 0 | 0 | 1 | 0 | 0 |
| ♀s with more than 5 dead implants | 0 | 0 | 6 | 17 | 2 | 0 |

Table 22

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--SUMMARY OF PRESUMPTIVE TRANSLOCATION F₁ MALES AFTER TWO BREEDINGS

| Parameter | Control I | Control II | TEM ^a I (0.32 mg/l--4 wks) | TEM ^a II (0.32 mg/l--2 wks) (0.12 mg/l--2 wks) | 71-61 ^b (140 ppm) | 71-61 ^b (1400 ppm) |
|--------------------------------------|-----------|------------|--|---|---------------------------------|----------------------------------|
| Total number of F ₁ males | 99 | 100 | 8 | 112 | 100 | 100 |
| Number of nonbreeder males | 2 | 0 | 1 | 0 | 0 | 0 |
| Number of presumptive sterile males | 0 | 0 | 0 | 3 | 0 | 1 |
| Number of partially sterile males | 0 | 1 | 5 | 11 | 0 | 0 |

^aTriethylenemelamine (TEM)^bSodium acid pyrophosphate (71-61)

Table 23

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--INDIVIDUAL IDENTIFICATION OF NONBREEDER, PRESUMPTIVE STERILE,
AND PARTIALLY STERILE F₁ MALES AFTER TWO BREEDINGS

| <u>Control I</u> | <u>Control II</u> | <u>TEM^a I</u> <u>(0.32 mg/l--4 wks)</u> | <u>TEM^a II</u> <u>(0.32 mg/l--2 wks)</u> <u>(0.12 mg/l--2 wks)</u> | <u>71-61^b</u> <u>(140 ppm)</u> | <u>71-61^b</u> <u>(1400 ppm)</u> |
|----------------------------|-------------------|---|---|--|---|
| <u>NON-BREEDER</u> | | | | | |
| 15 | | 102 | | | |
| 40 | | | | | |
| <u>PRESUMPTIVE STERILE</u> | | | | | |
| 51 | | | 1504 | 699 | |
| | | | 1546 | | |
| | | | 1590 | | |
| <u>PARTIALLY STERILE</u> | | | | | |
| | 1455 | 101 | 1515 | | |
| | | 103 | 1528 | | |
| | | 106 | 1544 | | |
| | | 107 | 1561 | | |
| | | 108 | 1565 | | |
| | | | 1571 | | |
| | | | 1572 | | |
| | | | 1595 | | |
| | | | 1602 | | |
| | | | 1605 | | |
| | | | 1612 | | |

^aTriethylenemelamine (TEM)

^bSodium acid pyrophosphate (71-61)

Table 24

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--BREEDING AND REBREEDING
SUMMARY OF NONBREEDER AND PRESUMPTIVE TRANSLOCATION F₁ MALES--CONTROLS

| <u>Treatment Group</u> | <u>F₁ Male Number</u> | <u>First Breeding (3 females)</u> | | | <u>Second Breeding (3 females)</u> | | |
|------------------------|----------------------------------|-----------------------------------|---|---|------------------------------------|----|----|
| Control I | 15 | -* | - | - | - | - | - |
| | 16 | - | - | - | 10 | - | - |
| | 40 | - | - | - | - | - | - |
| | 41 | - | - | - | 10 | - | - |
| | 69 | - | - | - | 11 | 12 | 11 |
| | 77 | 6 | 4 | 8 | 7 | 11 | - |
| Totals | | 6 | | | 2 | | |
| Control II | 1403 | 0** | 9 | 0 | 9 | - | - |
| | 1423 | 0 | 0 | 9 | 10 | 11 | 11 |
| | 1455 | 0 | 7 | 7 | - | - | - |
| | 1484 | 0 | 9 | 9 | - | - | 8 |
| | 1491 | 0 | 9 | - | 10 | 12 | 10 |
| | 1495 | 2 | 5 | 0 | 12 | 10 | 2 |
| Totals | | 6 | | | 1 | | |

* - indicates a plug was not detected and female was not pregnant.

**0 indicates a plug was observed but female was not pregnant.

Table 25

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--BREEDING AND
 REBREEDING SUMMARY OF NONBREEDER AND PRESUMPTIVE TRANSLOCATION F₁ MALES
 POSITIVE CONTROLS

| <u>Treatment Group</u> | <u>F₁ Male Number</u> | <u>First Breeding (3 females)</u> | | | <u>Second Breeding (3 females)</u> | | | <u>Third Breeding (3 females)</u> | | | |
|--|----------------------------------|-----------------------------------|-----|---|------------------------------------|----|----|-----------------------------------|---|---|---|
| TEM I (0.32 mg/l for 4 weeks) | 101 | 0 | **0 | 0 | 0 | 4 | - | * | 4 | 1 | 6 |
| | 102 | - | - | - | - | - | - | - | - | - | - |
| | 103 | - | 1 | - | 5 | 5 | 0 | 4 | 4 | 2 | |
| | 106 | 4 | 5 | 3 | 0 | 4 | 7 | 6 | 5 | 6 | |
| | 107 | 0 | - | - | 1 | - | - | - | - | - | |
| | 108 | 2 | 8 | 6 | 4 | 4 | 1 | 0 | 2 | - | |
| Totals | | 6 | | | 6 | | | 6 | | | |
| TEM II (0.32 mg/l for 2 weeks, 0.12 mg/l for 2 weeks) | 1504 | 0 | 0 | - | 0 | 0 | 0 | | | | |
| | 1515 | 3 | 3 | 4 | 5 | 4 | 2 | | | | |
| | 1528 | 0 | 2 | 0 | 0 | 1 | - | | | | |
| | 1544 | 4 | 2 | 1 | 3 | 0 | 5 | | | | |
| | 1546 | 0 | 0 | 0 | 0 | 0 | - | | | | |
| | 1551 | 0 | - | - | 0 | 12 | 10 | | | | |
| | 1561 | 4 | 3 | - | 4 | 3 | 3 | | | | |
| | 1565 | 0 | 4 | 2 | 4 | 2 | 1 | | | | |
| | 1571 | 1 | 6 | 8 | 3 | 3 | 4 | | | | |
| | 1572 | 5 | 2 | 6 | - | - | - | | | | |
| | 1576 | 9 | 5 | 6 | 8 | 8 | - | | | | |
| | 1590 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | 1595 | 5 | 2 | 3 | 2 | 3 | - | | | | |
| | 1599 | 9 | 4 | - | 12 | 12 | - | | | | |
| | 1602 | 3 | 0 | 6 | 2 | 0 | 7 | | | | |
| | 1605 | 5 | 0 | 2 | - | - | - | | | | |
| | 1612 | 5 | 3 | - | 0 | 3 | 4 | | | | |
| Totals | | 17 | | | 14 | | | | | | |

* - indicates a plug was not detected and female was not pregnant.

**0 indicates a plug was observed but female was not pregnant.

Table 26

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--BREEDING AND REBREEDING
 SUMMARY OF PRESUMPTIVE TRANSLOCATION F₁ MALES--SODIUM ACID PYROPHOSPHATE

| <u>Treatment Group</u> | <u>F₁ Male Number</u> | <u>First Breeding (3 Females)</u> | | | <u>Second Breeding (3 Females)</u> | | |
|--------------------------------------|----------------------------------|-----------------------------------|-----|---|------------------------------------|----|----|
| Sodium acid pyrophosphate (140 ppm) | 708 | 6 | -* | - | 9 | 12 | 9 |
| | 720 | - | - | - | 13 | 11 | 5 |
| | 743 | 6 | 0** | 8 | 5 | 10 | 9 |
| Totals | | 3 | | | 0 | | |
| Sodium acid pyrophosphate (1400 ppm) | 602 | 0 | - | - | 13 | 12 | 11 |
| | 604 | 7 | 0 | - | 12 | 10 | 10 |
| | 635 | 5 | 9 | - | 15 | 9 | 13 |
| | 650 | - | 0 | - | 13 | 11 | 11 |
| | 699 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | | 5 | | | 1 | | |

* - indicates a plug was not detected and female was not pregnant.

** 0 indicates a plug was observed but female was not pregnant.

Table 27

SODIUM ACID PYROPHOSPHATE TRANSLOCATION STUDY--CYTOGENETIC EVALUATION OF
MEIOTIC CELLS FROM TESTES PREPARATIONS OF F₁ MICE

| <u>Treatment</u> | <u>F₁ Male Number</u> | <u>Testes Weight (mg)</u> | <u>Classification After Two Breedings</u> | <u>Cytogenetic Classification</u> |
|---|----------------------------------|---------------------------|---|---------------------------------------|
| Control I | 15 | 272 | Nonbreeder | Normal |
| | 40 | 272 | Nonbreeder | Normal |
| Control II | 1455 | 301 | Partially sterile | Normal |
| TEM I | 103 | 375 | Partially sterile | Positive reciprocal translocation |
| | 106 | 259 | Partially sterile | Positive reciprocal translocation |
| | 108 | 252 | Partially sterile | Positive reciprocal translocation |
| Sodium acid pyrophosphate (1400 ppm) | 699 | 39 | Presumptive sterile | Completely sterile (no meiotic cells) |

APPENDIX A

**STATISTICAL PROCEDURE FOR EVALUATION OF
DOMINANT LETHAL DATA WITH A DESCRIPTION
AND EXPLANATION OF THE COMPUTER PRINTOUTS**

Program Abstract

1. Serial Number: KSH009

Title: Chemical Mutagenicity Study

Deck Name: KLUTE

2. Abstract: This program performs statistical calculations to determine the mutagenicity of certain chemical compounds.

3. Originator: Jim Eusebio
June 1972

Revised: Kathleen S. Himmelberger

4. Date: February 8, 1974

5. Memory Requirements: 134236₈

6. Input: Data deck

7. Output: Printed output listing input data and results of several statistical tests (CHI-SQUARE test, ARMITAGE test, T-test, regression fits, PROBIT analysis, analysis of variance).

8. System: CDC 6400 Scope 3.3
FORTRAN IV

Program Description

The program which performs statistical calculations using the autopsy data of female rats is called KLUTE. KLUTE is written in FORTRAN IV for use on the CDC 6400. Because storage requirements of the program exceeded available memory, it was necessary to use overlays (see SCOPE Reference Manual, 6000 Version 3.3, pp 6-14 to 6-18). Therefore, card decks must be loaded in a specific order.

Although KLUTE was designed to allow as much flexibility in experimentation as possible, there are some criteria which must be satisfied:

1. The maximum number of test groups is included in the first week. After the first week, groups may be terminated. (Some studies mate the single-dose groups for eight weeks and multiple-dose groups for only seven.)
2. There are at most five single-dose groups and five multiple-dose groups. The program will handle experiments using only single-dose groups or multiple-dose groups.
3. A control group exists for single-dose and/or multiple-dose groups.
4. All males in the control group are mated in the first week. If a male should die during or after the first week, no data cards appear for him from that time on; however, there must be at least one data card for him in week one. Control group males are numbered consecutively beginning with 1.
5. Number of each variable should not exceed the following:

| <u>Variable</u> | <u>Maximum</u> |
|----------------------------|------------------|
| Males | 20/group |
| Females | 100/week |
| Weeks in study | 8 |
| Females mated to each male | 80/8 week period |

STATISTICAL PROCEDURE
FOR EVALUATION OF DOMINANT LETHAL DATA

Introduction

In order to determine the mutagenic potential of selected food additives and chemicals, Stanford Research Institute has conducted several dominant lethal tests in mice and rats. Although individual tests differed slightly in details, basic test procedures were to administer compounds orally at different dose levels and frequency to groups of males. These males, as well as control group males for both the single and multiple-dose groups, were mated with two virgin females.

In studies using mice, females were examined daily for the presence of a mating plug (readily detectable in the mouse). When a plug was found, the female was replaced with a new virgin female. Fourteen days after identifying the mating plug, the females were sacrificed, and total implants, early deaths, and late deaths were counted. This continuous breeding and examination procedure was continued for seven weeks.

In studies using rats, females were removed after seven days of cohabitation with the males and replaced with new virgin females. Fourteen to eighteen days after first day of breeding, females were sacrificed and total implants, early deaths, late deaths, and total corpora lutea were counted. This procedure was repeated for eight weeks in the single dose groups and seven weeks in the multiple dose groups.

Autopsy data for each female was coded on work sheets and then punched on computer cards. These data cards, as well as a few cards describing the particulars of the project (duration, number of test groups, number of mated females, etc.), comprise the input to the KLUTE program.

Input

Input to the KLUTE program is a card deck, which was briefly described in the introduction.

Output

Output from KLUTE includes a printed list of the input data and results of several statistical tests.

KLUTE performs the following operations (where each statistical calculation is done once for each week's data):

1. The data cards are read and stored in central memory while a check is made to verify that the number of corpora lutea is greater than or equal to the number of implants. If any data fail this check, the run is aborted and the data are returned for review. The entire set of input data is printed out.
2. The fertility index (the number of pregnant females divided by the number of mated females) is calculated.
3. The chi-square test is done to compare each dosage level to the control on fertility. Let:

N_i = no. of mated females at dose level i,

n_i = no. of pregnant females at dose level i.

Then the chi-square 2 x 2 tables are of the form:

$$\begin{bmatrix} n_0 & n_1 \\ N_0 - n_0 & N_1 - n_1 \end{bmatrix}$$

and chi-squared (with 1 degree of freedom) is:

$$X_1^2 = \frac{(N_0 + N_1)(|n_0(n_1 - n_1) - n_1(N_0 - n_0)| - (N_0 + N_1)/2)^2}{(n_0 + n_1)(N_0 - n_0 + N_1 - n_1)(N_0)(N_1)} \quad (\text{corrected for continuity})$$

where the subscript 0 represents the control group.*

For each dosage group (including the control group and TEM), the following is printed out: the number of pregnant females (N PRG), the number of mated females (N MTD), the fertility index and X^2 .

4. Armitage's test for a linear trend in proportions is applied to the fertility index. The formula for this calculation is found on pages 246-248 of "Statistical Calculations" by Snedecor and Cochran, 6th Edition, Iowa State University Press, 1967. Using the notation of (3) above, we have a 2 x 3 contingency table of the form:

| | <u>dose 1</u> | <u>dose 2</u> | <u>dose 3</u> | <u>row totals</u> |
|----------------------|---------------|---------------|---------------|-------------------|
| <u>Column Totals</u> | n_1 | n_2 | n_3 | t |
| | $N_1 - n_1$ | $N_2 - n_2$ | $N_3 - n_3$ | $T-t$ |
| <u>Row Totals</u> | N_1 | N_2 | N_3 | T |

Armitage's "chi-square" is given as $X_{(C-1)}^2 - X_1^2$, where C=3 and

$$X_1^2 = \frac{T(T\sum nx - t\sum Nx)^2}{t(T-t)(T\sum Nx^2 - (\sum Nx)^2)}, \quad X_{(C-1)}^2 = \frac{T^2(\sum \frac{n}{N} - \frac{t}{T})^2}{t(T-t)}$$

*In all tests, the single-dose treatment groups are compared with the single-dose control group and the multiple-dose treatment groups compared with the multiple-dose control group.

where $\Sigma n_i x_i$ stands for $\sum_{i=1}^3 n_i x_i$, $\sum \frac{n_i^2}{N}$ for $\sum_{i=1}^3 \frac{n_i^2}{N_1}$, etc., and the x_i are the dosage levels.

This calculation is then repeated with x replaced by $\log x$. The Armitage test is also applied to the following 2×4 contingency table:

| <u>Control</u> | <u>dose 1</u> | <u>dose 2</u> | <u>dose 3</u> |
|----------------|---------------|---------------|---------------|
| n_0 | n_1 | n_2 | n_3 |
| $N_0 - n_0$ | $N_1 - n_1$ | $N_2 - n_2$ | $N_3 - n_3$ |

In this case, $C=4$.

The printout for the Armitage tests includes the degrees of freedom, the number pregnant (N PRG) and the number mated (N MTD) for each of the 3 or 4 groups included in the tests, plus $\chi^2_{(C-1)}$, χ^2_1 and their difference (labeled ARMTG CHISQ).

5. The t-test is applied to determine significant differences between the average number of implantations per pregnant female at a dose level, and the average for the control. Let

n_i = no. of pregnant females at dose level i .

u_{ij} = total no. of implantations for pregnant female j of dose i .

Then,

$$\bar{u}_i = \frac{1}{n_i} \sum_{j=1}^{n_i} u_{ij}$$

$$s_i^2 = \sum_{j=1}^{n_i} (u_{ij} - \bar{u}_i)^2$$

The T-statistic for dose i has $n_o + n_i - 2$ degrees of freedom, and is equal to:

$$t_i = \frac{\bar{u}_o - \bar{u}_i}{\sqrt{\left[\frac{s_o^2 + s_i^2}{n_o + n_i - 2} \left(\frac{1}{n_o} + \frac{1}{n_i} \right) \right]^{1/2}}}$$

The t-test printout gives, for each group: the number pregnant (N PRG), the mean and standard deviation of the number of implantations. The absolute value of T and the degrees of freedom (DF) are given for each treatment group and for TEM.

6. A regression fit of the average number of implantations, \bar{u}_i , is made for both the arithmetic and logarithmic dose (x_i and $\log x_i$) to see which is better.

These two fits include the data from the three treatment groups only. A third regression using the x_i as independent variables includes data from the three treatment groups and the control group.

The regressions are computed as follows:

Let N = the number of observations, i.e., the total number of pregnant females in the groups used in the regression.

x_i = the value of the independent variable (dose or log dose) for the i -th female.

u_i = the value of the dependent variable (number of implantations) for the i -th female.

Then,

$$\bar{X} = \bar{x} = \frac{1}{N} \sum_{i=1}^N x_i$$

SD X = standard deviation of the x_i

$$= \left[\frac{1}{N-1} SS_x \right]^{1/2},$$

$$\text{where } SS_x = \sum_{i=1}^N (x_i - \bar{x})^2$$

$$\bar{U} = \bar{u} = \frac{1}{N} \sum_{i=1}^N u_i,$$

SD U = standard deviation of the u_i

$$= \left[\frac{1}{N-1} SS_u \right]^{1/2},$$

$$\text{where } SS_u = \sum_{i=1}^N (u_i - \bar{u})^2,$$

$$\text{and } s_{xu} = \sum_{i=1}^N (x_i - \bar{x})(u_i - \bar{u}).$$

From these quantities, we compute:

B = estimate of the slope of the regression line

$$= s_{xu}/SS_x,$$

A = estimate of the intercept of the regression line

$$= \bar{u} - BX,$$

Also,

$$\begin{aligned} \text{VARU.X} &= \text{variance of } U \text{ about the regression line} \\ &= \frac{\text{SS}_U - (S_{XU})^2 / \text{SS}_X}{N-2} \end{aligned}$$

and from this is computed,

$$\text{VARB} = \text{variance of the estimate, B}$$

$$= \frac{\text{VARU.X}}{\text{SS}_X}$$

$$\text{VARA} = \text{variance of the estimate, A}$$

$$= \text{VARU.X} \left[\frac{1}{N} + \frac{\bar{x}^2}{\text{SS}_X} \right]$$

$$\text{VARUBAR} = \text{variance of } \bar{U},$$

$$= \frac{\text{VARU.X}}{N}$$

and

$$\text{CV U.X} = \text{coefficient of variation of } U \text{ about X}$$

$$= \frac{(\text{VARU.X})^{1/2}}{\bar{U}}$$

And finally we have:

TB = the t-statistic for testing the hypothesis that the regression slope is zero

$$= \frac{B}{\sqrt{\text{VARB}}}$$

DF = number of degrees of freedom for TB

$$= N - 2$$

7. The preimplantation loss, y_{ij} , is calculated for each pregnant female, j , as the number of corpora lutea, v_{ij} , minus the number of implantations, u_{ij} . Then the Freeman-Tukey transformation is applied to y_{ij} as follows:

$$f_{ij} = \sin^{-1} \sqrt{\frac{y_{ij}}{v_{ij}+1}} + \sin^{-1} \sqrt{\frac{y_{ij}+1}{v_{ij}+1}}$$

The t-test is then applied to the f 's. Let

$$\bar{f}_i = \frac{1}{n_i} \sum_{j=1}^{n_i} f_{ij}$$

$$s_i^2 = \sum_{j=1}^{n_i} (f_{ij} - \bar{f}_i)^2,$$

where n_i , and n_o are defined above (step 3).

Then

$$t_i = \frac{\bar{f}_o - \bar{f}_i}{\sqrt{\frac{s_o^2 + s_i^2}{n_o + n_i - 2} \left(\frac{1}{n_o} + \frac{1}{n_i} \right)}}^{1/2}$$

The printout gives, for each group, the number of pregnant females (N PRG), the mean and standard deviation of the f 's. For each treatment group and for TEM, the absolute value of t_i (T), and its degrees of freedom (DF) are given.

8. The number of dead implants, z_{ij} , for each female, j , is the sum of the early and late deaths. The t-test is applied to determine significant differences between the average number of dead implants per pregnant female at a dose level and the average for the control by repeating step 5 above with z_{ij} substituted for u_{ij} .

$$f_{ij} = \sin^{-1} \sqrt{\frac{z_{ij}}{u_{ij}+1}} + \sin^{-1} \sqrt{\frac{z_{ij}+1}{u_{ij}+1}}$$

$$\bar{f}_i = \frac{1}{n_i} \sum_{j=1}^{n_i} f_{ij}$$

$$s_i^2 = \sum_{j=1}^{n_i} (f_{ij} - \bar{f}_i)^2$$

$$t_i = \frac{\bar{f}_o - \bar{f}_i}{\left[\frac{s_o^2 + s_i^2}{n_o + n_i - 2} \left(\frac{1}{n_o} + \frac{1}{n_i} \right) \right]^{1/2}}$$

13. Five one-way analyses of variance are performed on the control groups' data. The five variables analyzed are:

- a. Number of pregnant females,
- b. Number of implantations per pregnant female,
- c. The pre-implantation loss (as defined in Step 7) per pregnant female,
- d. The number of dead implants per pregnant female,
- e. The ratio of dead implants to the total implants per pregnant female.

In view of the fact that none of the variables on which the one-way analysis of variance have been performed is even approximately normal in distribution, the probability levels associated with these analyses of variances are necessarily approximate.

For case a., R_{kj} equals 1 if female j assigned to male k became pregnant; otherwise R_{kj} equals zero. For cases b. through e. the tabulation is limited to data for pregnant females; i.e., R_{kj} equals the value of the specified variable for female j assigned to male k if the female was pregnant; data for non-pregnant females are excluded.

For case a., L_k equals the number of females assigned to male k. Cases b. through e., L_k equals the number of females assigned to male k that became pregnant.

For each of these variables the ANOVA calculations are as follows:

M is the number of males

$$\bar{R}_k = \frac{1}{L_k} \sum_{j=1}^{L_k} R_{kj}$$

$$\bar{R} = \frac{1}{M} \sum_{k=1}^M \bar{R}_k$$

Then, the sum-of-squares-within-males = $SUMSQ_w$

$$= \sum_{k=1}^M \sum_{j=1}^{L_k} (R_{kj} - \bar{R}_k)^2,$$

the degrees-of-freedom-within-males = DF_w

$$= \sum_{k=1}^M (L_k - 1),$$

the mean-square-within-males = $MEANSQ_w = \frac{SUMSQ_w}{DF_w}$.

Similarly, the sum-of-squares-between-males = $SUMSQ_B = \sum_{k=1}^M L_k (\bar{R}_k - \bar{R})^2$,

the degrees-of-freedom-between-males = $DF_B = M-1$,

and the mean-square-between-males = $MEANSQ_B = \frac{SUMSQ_B}{DF_B}$.

Finally, the F-ratio is $F = \frac{MEANSQ_B}{MEANSQ_w}$.

In the printout, these quantities are labeled without the subscripts, but the "within" and "between" quantities are identified by the page heading.

Also, the total-sum-of-squares = $SUMSQ_w + SUMSQ_B$.

and its degrees-of-freedom

$$= \sum_{k=1}^M L_k - 1,$$

printed.

14. The t-test is applied to determine significant differences between the average number of corpora lutea per pregnant female at a dose level, and the average for the control. Let

n_i = no. of pregnant females at dose level i.

C_{ij} = total no. of corpora lutea for pregnant female j of dose i.

Then,

$$\bar{C}_i = \frac{1}{n_i} \sum_{j=1}^{n_i} C_{ij}$$

$$S_i^2 = \sum_{j=1}^{n_i} (C_{ij} - \bar{C}_i)^2$$

The T-statistic for dose i has $n_0 + n_1 - 2$ degrees of freedom, and is equal to:

$$t_i = \frac{\bar{C}_0 - \bar{C}_i}{\sqrt{\left[\frac{S_0^2 + S_i^2}{n_0 + n_i - 2} \left(\frac{1}{n_0} + \frac{1}{n_i} \right) \right]}}^{1/2}$$

The t-test printout gives, for each group: the number pregnant (N PRG), the mean and standard deviation of the number of corpora lutea. The absolute value of T and the degrees of freedom (DF) are given for each treatment group and for TEM.

9. The number of pregnant females with one or more dead implants, m_i , is calculated. In the printout, the m_i are referred to as N WDI (i.e., number with dead implants).

10. The chi-square test and Armitage's test for a linear trend is calculated for the proportion of pregnant females with one or more dead implants,

$$p_i = \frac{m_i}{n_i}$$

by repeating steps 3 and 4, above, with m_i substituted for n_i , and n_i substituted for N_i .

In the printout, the ratio, p_i , is called the "death index", in analogy with the fertility index.

11. The ratios, p_i , computed above, undergo a probit analysis to determine whether the probit of this proportion is linearly related to the log dose. Computer subroutine PROBT, from the IBM System/360 Scientific Subroutine Package Version III, is used to compute A and B the χ^2 statistic for the regression equation,

$$p_i = A + B * \log x_i$$

where p_i is derived by the program from

$$N_x(0,1)dx = p_i$$

($N_x(0,1)$ is the normal curve, with a mean of 0 and a standard deviation of 1).

12. The number of dead implants, z_{ij} , and the number of total implants, u_{ij} , are calculated for each pregnant female, j. The Freeman-Tukey transformation and subsequent t-test is applied to this data by repeating step 7, above, as follows:

APPENDIX B

RAW DATA AND STATISTICAL ANALYSES

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| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORAL LUTEA | |
|---------------|------|-----------|----------|------------|-------|----------|--------------|---|-------------|---|----------------|---|
| | | | | | | | L | R | L | R | L | R |
| CONTROL | 1 | S 0.00000 | 1 | 1 | Y | 6 | 6 | 0 | 0 | 0 | 2 | 6 |
| CONTROL | 1 | S 0.00000 | 1 | 2 | Y | 3 | 5 | 0 | 1 | 0 | 0 | 5 |
| CONTROL | 1 | S 0.00000 | 2 | 3 | Y | 11 | 4 | 0 | 0 | 3 | 2 | 5 |
| CONTROL | 1 | S 0.00000 | 2 | 4 | Y | 5 | 4 | 0 | 0 | 1 | 0 | 4 |
| CONTROL | 1 | S 0.00000 | 3 | 5 | Y | 5 | 6 | 0 | 1 | 0 | 0 | 6 |
| CONTROL | 1 | S 0.00000 | 3 | 6 | Y | 6 | 4 | 0 | 0 | 1 | 0 | 7 |
| CONTROL | 1 | S 0.00000 | 4 | 7 | Y | 4 | 8 | 0 | 0 | 0 | 1 | 6 |
| CONTROL | 1 | S 0.00000 | 4 | 8 | Y | 7 | 4 | 1 | 0 | 0 | 0 | 8 |
| CONTROL | 1 | S 0.00000 | 5 | 9 | Y | 1 | 7 | 0 | 0 | 0 | 1 | 3 |
| CONTROL | 1 | S 0.00000 | 5 | 10 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 5 |
| CONTROL | 1 | S 0.00000 | 6 | 11 | Y | 5 | 5 | 1 | 0 | 0 | 0 | 6 |
| CONTROL | 1 | S 0.00000 | 6 | 12 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 9 |
| CONTROL | 1 | S 0.00000 | 7 | 13 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 |
| CONTROL | 1 | S 0.00000 | 7 | 14 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 5 |
| CONTROL | 1 | S 0.00000 | 8 | 15 | Y | 7 | 4 | 3 | 1 | 0 | 1 | 7 |
| CONTROL | 1 | S 0.00000 | 8 | 16 | Y | 5 | 6 | 0 | 0 | 0 | 1 | 8 |
| CONTROL | 1 | S 0.00000 | 9 | 17 | Y | 7 | 7 | 0 | 1 | 0 | 0 | 9 |
| CONTROL | 1 | S 0.00000 | 9 | 18 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 8 |
| CONTROL | 1 | S 0.00000 | 10 | 19 | Y | 6 | 10 | 4 | 9 | 1 | 0 | 6 |
| CONTROL | 1 | S 0.00000 | 10 | 20 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S .00720 | 51 | 101 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 |
| 71-61 | 1 | S .00720 | 51 | 102 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 9 |
| 71-61 | 1 | S .00720 | 52 | 103 | Y | 4 | 9 | 0 | 0 | 0 | 0 | 4 |
| 71-61 | 1 | S .00720 | 52 | 104 | Y | 4 | 6 | 3 | 4 | 0 | 1 | 4 |
| 71-61 | 1 | S .00720 | 53 | 105 | Y | 6 | 5 | 0 | 1 | 0 | 0 | 6 |
| 71-61 | 1 | S .00720 | 53 | 106 | Y | 3 | 5 | 0 | 1 | 1 | 0 | 3 |
| 71-61 | 1 | S .00720 | 54 | 107 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S .00720 | 54 | 108 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S .00720 | 55 | 109 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S .00720 | 55 | 110 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S .00720 | 56 | 111 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 6 |
| 71-61 | 1 | S .00720 | 56 | 112 | Y | 2 | 7 | 0 | 0 | 0 | 0 | 3 |
| 71-61 | 1 | S .00720 | 57 | 113 | Y | 3 | 5 | 0 | 0 | 0 | 0 | 9 |
| 71-61 | 1 | S .00720 | 57 | 114 | Y | 1 | 9 | 0 | 0 | 0 | 1 | 1 |
| 71-61 | 1 | S .00720 | 58 | 115 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 |
| 71-61 | 1 | S .00720 | 58 | 116 | Y | 8 | 7 | 0 | 1 | 0 | 0 | 8 |
| 71-61 | 1 | S .00720 | 59 | 117 | Y | 7 | 3 | 0 | 0 | 1 | 0 | 7 |
| 71-61 | 1 | S .00720 | 59 | 118 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 5 |
| 71-61 | 1 | S .00720 | 60 | 119 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 |
| 71-61 | 1 | S .00720 | 60 | 120 | Y | 5 | 4 | 0 | 1 | 0 | 0 | 4 |

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SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|--------|----------|------------|-------|----------|---|--------------|---|-------------|---|---------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 1 | S | .07200 | 61 | 121 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 1 | S | .07200 | 61 | 122 | Y | 6 | 5 | 0 | 0 | 1 | 0 | 6 | 5 |
| 71-61 | 1 | S | .07200 | 62 | 123 | Y | 4 | 5 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 1 | S | .07200 | 62 | 124 | Y | 8 | 6 | 0 | 0 | 0 | 1 | 8 | 6 |
| 71-61 | 1 | S | .07200 | 63 | 125 | Y | 5 | 6 | 0 | 1 | 0 | 0 | 5 | 6 |
| 71-61 | 1 | S | .07200 | 63 | 126 | Y | 4 | 6 | 1 | 0 | 0 | 0 | 4 | 7 |
| 71-61 | 1 | S | .07200 | 64 | 127 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S | .07200 | 64 | 128 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 1 | S | .07200 | 65 | 129 | Y | 5 | 7 | 0 | 0 | 0 | 1 | 6 | 7 |
| 71-61 | 1 | S | .07200 | 65 | 130 | Y | 8 | 2 | 0 | 0 | 0 | 0 | 8 | 2 |
| 71-61 | 1 | S | .07200 | 66 | 131 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 1 | S | .07200 | 66 | 132 | Y | 3 | 8 | 0 | 0 | 2 | 0 | 3 | 10 |
| 71-61 | 1 | S | .07200 | 67 | 133 | Y | 5 | 7 | 1 | 0 | 1 | 0 | 5 | 8 |
| 71-61 | 1 | S | .07200 | 67 | 134 | Y | 2 | 6 | 0 | 0 | 0 | 2 | 2 | 7 |
| 71-61 | 1 | S | .07200 | 68 | 135 | Y | 5 | 7 | 1 | 0 | 0 | 0 | 6 | 9 |
| 71-61 | 1 | S | .07200 | 68 | 136 | Y | 7 | 5 | 1 | 0 | 0 | 1 | 7 | 6 |
| 71-61 | 1 | S | .07200 | 69 | 137 | Y | 4 | 4 | 2 | 0 | 2 | 0 | 7 | 6 |
| 71-61 | 1 | S | .07200 | 69 | 138 | Y | 6 | 6 | 1 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 1 | S | .07200 | 70 | 139 | Y | 5 | 5 | 0 | 0 | 0 | 1 | 5 | 5 |
| 71-61 | 1 | S | .07200 | 70 | 140 | Y | 8 | 5 | 0 | 1 | 0 | 0 | 8 | 5 |
| 71-61 | 1 | S | .72000 | 71 | 141 | Y | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 1 | S | .72000 | 71 | 142 | Y | 4 | 8 | 1 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 1 | S | .72000 | 72 | 143 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 1 | S | .72000 | 72 | 144 | Y | 5 | 5 | 0 | 1 | 0 | 0 | 6 | 6 |
| 71-61 | 1 | S | .72000 | 73 | 145 | Y | 4 | 6 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 1 | S | .72000 | 73 | 146 | Y | 7 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 1 | S | .72000 | 74 | 147 | Y | 6 | 4 | 1 | 1 | 0 | 0 | 6 | 5 |
| 71-61 | 1 | S | .72000 | 74 | 148 | Y | 4 | 5 | 1 | 0 | 0 | 0 | 5 | 5 |
| 71-61 | 1 | S | .72000 | 75 | 149 | Y | 3 | 6 | 0 | 0 | 1 | 3 | 4 | 6 |
| 71-61 | 1 | S | .72000 | 75 | 150 | Y | 4 | 7 | 2 | 4 | 0 | 1 | 5 | 8 |
| 71-61 | 1 | S | .72000 | 76 | 151 | Y | 7 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 1 | S | .72000 | 76 | 152 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 1 | S | .72000 | 77 | 153 | Y | 10 | 3 | 2 | 1 | 0 | 0 | 11 | 3 |
| 71-61 | 1 | S | .72000 | 77 | 154 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S | .72000 | 78 | 155 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | S | .72000 | 78 | 156 | Y | 1 | 6 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 1 | S | .72000 | 79 | 157 | Y | 5 | 5 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 1 | S | .72000 | 79 | 158 | Y | 7 | 6 | 0 | 0 | 1 | 0 | 7 | 6 |
| 71-61 | 1 | S | .72000 | 80 | 159 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 1 | S | .72000 | 80 | 160 | Y | 6 | 0 | 1 | 0 | 0 | 0 | 6 | 5 |

| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|---------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|------|
| | | | | | | | | L | R | L | R | L | R |
| TEM | 1 | S | .00020 | 11 | 21 | Y | 6 | 3 | 5 | 2 | 0 | 0 | 6 4 |
| TEM | 1 | S | .00020 | 11 | 22 | Y | 3 | 4 | 2 | 4 | 0 | 0 | 4 4 |
| TEM | 1 | S | .00020 | 12 | 23 | Y | 7 | 8 | 4 | 6 | 0 | 0 | 7 8 |
| TEM | 1 | S | .00020 | 12 | 24 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 1 | S | .00020 | 13 | 25 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 1 | S | .00020 | 13 | 26 | Y | 2 | 6 | 2 | 4 | 0 | 2 | 6 8 |
| TEM | 1 | S | .00020 | 14 | 27 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 1 | S | .00020 | 14 | 28 | Y | 3 | 8 | 0 | 4 | 0 | 0 | 3 10 |
| TEM | 1 | S | .00020 | 15 | 29 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 1 | S | .00020 | 15 | 30 | Y | 2 | 2 | 0 | 0 | 2 | 2 | 5 9 |
| TEM | 1 | S | .00020 | 16 | 31 | Y | 2 | 3 | 1 | 1 | 1 | 2 | 5 8 |
| TEM | 1 | S | .00020 | 16 | 32 | Y | 7 | 5 | 3 | 4 | 1 | 0 | 7 8 |
| TEM | 1 | S | .00020 | 17 | 33 | Y | 6 | 6 | 5 | 4 | 0 | 0 | 7 6 |
| TEM | 1 | S | .00020 | 17 | 34 | Y | 3 | 4 | 2 | 4 | 0 | 0 | 7 6 |
| TEM | 1 | S | .00020 | 18 | 35 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 1 | S | .00020 | 18 | 36 | Y | 0 | 3 | 0 | 0 | 0 | 3 | 2 8 |
| TEM | 1 | S | .00020 | 19 | 37 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 1 | S | .00020 | 19 | 38 | Y | 2 | 3 | 1 | 3 | 0 | 0 | 7 5 |
| TEM | 1 | S | .00020 | 20 | 39 | Y | 0 | 2 | 0 | 0 | 0 | 1 | 7 4 |
| TEM | 1 | S | .00020 | 20 | 40 | Y | 6 | 5 | 5 | 5 | 0 | 0 | 6 5 |
| CONTROL | 1 | M | 0.00000 | 1 | 1 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 6 7 |
| CONTROL | 1 | M | 0.00000 | 1 | 2 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 5 6 |
| CONTROL | 1 | M | 0.00000 | 2 | 3 | Y | 5 | 7 | 2 | 1 | 0 | 0 | 5 7 |
| CONTROL | 1 | M | 0.00000 | 2 | 4 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 7 |
| CONTROL | 1 | M | 0.00000 | 3 | 5 | Y | 8 | 5 | 1 | 0 | 2 | 3 | 8 5 |
| CONTROL | 1 | M | 0.00000 | 3 | 6 | Y | 7 | 7 | 1 | 0 | 0 | 0 | 7 7 |
| CONTROL | 1 | M | 0.00000 | 4 | 7 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 4 |
| CONTROL | 1 | M | 0.00000 | 4 | 8 | Y | 2 | 6 | 0 | 0 | 0 | 0 | 2 10 |
| CONTROL | 1 | M | 0.00000 | 5 | 9 | Y | 8 | 6 | 0 | 0 | 2 | 1 | 8 6 |
| CONTROL | 1 | M | 0.00000 | 5 | 10 | Y | 6 | 7 | 0 | 0 | 1 | 1 | 6 7 |
| CONTROL | 1 | M | 0.00000 | 6 | 11 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 7 6 |
| CONTROL | 1 | M | 0.00000 | 6 | 12 | Y | 5 | 7 | 1 | 0 | 0 | 0 | 5 7 |
| CONTROL | 1 | M | 0.00000 | 7 | 13 | Y | 9 | 4 | 0 | 0 | 0 | 0 | 9 4 |
| CONTROL | 1 | M | 0.00000 | 7 | 14 | Y | 3 | 9 | 0 | 1 | 0 | 0 | 3 9 |
| CONTROL | 1 | M | 0.00000 | 8 | 15 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 8 |
| CONTROL | 1 | M | 0.00000 | 8 | 16 | Y | 8 | 6 | 2 | 1 | 2 | 1 | 9 7 |
| CONTROL | 1 | M | 0.00000 | 9 | 17 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 6 9 |
| CONTROL | 1 | M | 0.00000 | 9 | 18 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 7 |
| CONTROL | 1 | M | 0.00000 | 10 | 19 | Y | 2 | 11 | 0 | 0 | 0 | 1 | 2 12 |
| CONTROL | 1 | M | 0.00000 | 10 | 20 | Y | 3 | 12 | 0 | 1 | 0 | 0 | 3 12 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 1 | M | .00720 | 41 | 81 | Y | 5 | 5 | 1 | 0 | 0 | 0 | 5 | 5 |
| 71-61 | 1 | M | .00720 | 41 | 82 | Y | 9 | 5 | 0 | 0 | 1 | 0 | 11 | 11 |
| 71-61 | 1 | M | .00720 | 42 | 83 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 1 | M | .00720 | 42 | 84 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 1 | M | .00720 | 43 | 85 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 1 | M | .00720 | 43 | 86 | Y | 8 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 1 | M | .00720 | 44 | 87 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 1 | M | .00720 | 44 | 88 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 | 10 |
| 71-61 | 1 | M | .00720 | 45 | 89 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 1 | M | .00720 | 45 | 90 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 1 | M | .00720 | 46 | 91 | Y | 7 | 7 | 0 | 0 | 2 | 0 | 7 | 8 |
| 71-61 | 1 | M | .00720 | 46 | 92 | Y | 4 | 8 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 1 | M | .00720 | 47 | 93 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | M | .00720 | 47 | 94 | Y | 5 | 7 | 1 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 1 | M | .00720 | 48 | 95 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 1 | M | .00720 | 48 | 96 | Y | 10 | 7 | 3 | 0 | 0 | 0 | 10 | 7 |
| 71-61 | 1 | M | .00720 | 49 | 97 | Y | 7 | 5 | 2 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 1 | M | .00720 | 49 | 98 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 1 | M | .00720 | 50 | 99 | Y | 9 | 5 | 0 | 0 | 1 | 0 | 9 | 5 |
| 71-61 | 1 | M | .00720 | 50 | 100 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 1 | M | .07200 | 51 | 101 | Y | 0 | 9 | 0 | 0 | 0 | 0 | 3 | 12 |
| 71-61 | 1 | M | .07200 | 51 | 102 | Y | 8 | 5 | 4 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 1 | M | .07200 | 52 | 103 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 1 | M | .07200 | 52 | 104 | Y | 7 | 7 | 1 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 1 | M | .07200 | 53 | 105 | Y | 4 | 9 | 0 | 2 | 0 | 0 | 4 | 9 |
| 71-61 | 1 | M | .07200 | 53 | 106 | Y | 8 | 5 | 0 | 0 | 1 | 0 | 8 | 6 |
| 71-61 | 1 | M | .07200 | 54 | 107 | Y | 7 | 5 | 1 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 1 | M | .07200 | 54 | 108 | Y | 9 | 4 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 1 | M | .07200 | 55 | 109 | Y | 9 | 4 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 1 | M | .07200 | 55 | 110 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 3 | 8 |
| 71-61 | 1 | M | .07200 | 56 | 111 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 1 | M | .07200 | 56 | 112 | Y | 10 | 1 | 0 | 0 | 0 | 0 | 12 | 3 |
| 71-61 | 1 | M | .07200 | 57 | 113 | Y | 4 | 9 | 0 | 0 | 0 | 0 | 4 | 10 |
| 71-61 | 1 | M | .07200 | 57 | 114 | Y | 4 | 7 | 0 | 0 | 0 | 1 | 4 | 7 |
| 71-61 | 1 | M | .07200 | 58 | 115 | Y | 11 | 4 | 0 | 0 | 0 | 0 | 11 | 4 |
| 71-61 | 1 | M | .07200 | 58 | 116 | Y | 4 | 8 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 1 | M | .07200 | 59 | 117 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | M | .07200 | 59 | 118 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 1 | M | .07200 | 60 | 119 | Y | 7 | 5 | 1 | 3 | 0 | 0 | 7 | 5 |
| 71-61 | 1 | M | .07200 | 60 | 120 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|--------|----------|------------|-------|----------|----|--------------|---|-------------|---|---------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 1 | M | .72000 | 61 | 121 | Y | 8 | 4 | 0 | 0 | 1 | 0 | 8 | 4 |
| 71-61 | 1 | M | .72000 | 61 | 122 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 9 | 3 |
| 71-61 | 1 | M | .72000 | 62 | 123 | Y | 4 | 10 | 0 | 0 | 0 | 0 | 4 | 10 |
| 71-61 | 1 | M | .72000 | 62 | 124 | Y | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| 71-61 | 1 | M | .72000 | 63 | 125 | Y | 3 | 10 | 0 | 0 | 0 | 0 | 3 | 10 |
| 71-61 | 1 | M | .72000 | 63 | 126 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 1 | M | .72000 | 64 | 127 | Y | 5 | 8 | 2 | 2 | 0 | 2 | 5 | 11 |
| 71-61 | 1 | M | .72000 | 64 | 128 | Y | 8 | 6 | 1 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 1 | M | .72000 | 65 | 129 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | M | .72000 | 65 | 130 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 1 | M | .72000 | 66 | 131 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 1 | M | .72000 | 66 | 132 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 1 | M | .72000 | 67 | 133 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | M | .72000 | 67 | 134 | Y | 4 | 8 | 0 | 0 | 0 | 0 | 4 | 10 |
| 71-61 | 1 | M | .72000 | 68 | 135 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 10 | 3 |
| 71-61 | 1 | M | .72000 | 68 | 136 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 1 | M | .72000 | 69 | 137 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 1 | M | .72000 | 69 | 138 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 1 | M | .72000 | 70 | 139 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 1 | M | .72000 | 70 | 140 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 7 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|-------|
| | | | | | | | L | R | L | R | L | R |
| CONTROL | 2 | S 0.00000 | 1 | 1 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 6 |
| CONTROL | 2 | S 0.00000 | 1 | 2 | YY | 7 | 6 | 1 | 0 | 1 | 0 | 7 6 |
| CONTROL | 2 | S 0.00000 | 2 | 3 | YY | 9 | 1 | 0 | 0 | 0 | 0 | 9 3 |
| CONTROL | 2 | S 0.00000 | 2 | 4 | YY | 6 | 5 | 0 | 0 | 0 | 1 | 6 6 |
| CONTROL | 2 | S 0.00000 | 3 | 5 | YY | 7 | 6 | 0 | 0 | 1 | 0 | 7 6 |
| CONTROL | 2 | S 0.00000 | 3 | 6 | YY | 6 | 1 | 0 | 0 | 0 | 0 | 10 1 |
| CONTROL | 2 | S 0.00000 | 4 | 7 | YY | 5 | 8 | 0 | 0 | 0 | 0 | 5 8 |
| CONTROL | 2 | S 0.00000 | 4 | 8 | YY | 8 | 5 | 0 | 0 | 0 | 0 | 8 8 |
| CONTROL | 2 | S 0.00000 | 5 | 9 | YY | 1 | 0 | 1 | 0 | 0 | 0 | 13 13 |
| CONTROL | 2 | S 0.00000 | 5 | 10 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 6 7 |
| CONTROL | 2 | S 0.00000 | 6 | 11 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 7 7 |
| CONTROL | 2 | S 0.00000 | 6 | 12 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 7 9 |
| CONTROL | 2 | S 0.00000 | 7 | 13 | YY | 7 | 6 | 0 | 0 | 1 | 0 | 7 6 |
| CONTROL | 2 | S 0.00000 | 7 | 14 | YY | 3 | 9 | 0 | 0 | 0 | 0 | 5 12 |
| CONTROL | 2 | S 0.00000 | 8 | 15 | YY | 8 | 6 | 0 | 1 | 1 | 1 | 10 6 |
| CONTROL | 2 | S 0.00000 | 8 | 16 | YY | 2 | 6 | 0 | 0 | 0 | 0 | 2 8 |
| CONTROL | 2 | S 0.00000 | 9 | 17 | YY | 6 | 4 | 0 | 0 | 0 | 0 | 6 4 |
| CONTROL | 2 | S 0.00000 | 9 | 18 | YY | 4 | 5 | 0 | 0 | 0 | 0 | 5 5 |
| CONTROL | 2 | S 0.00000 | 10 | 19 | YY | 2 | 1 | 0 | 0 | 0 | 0 | 5 6 |
| CONTROL | 2 | S 0.00000 | 10 | 20 | Y | 5 | 6 | 0 | 0 | 1 | 0 | 7 6 |
| 71-61 | 2 | S .00720 | 51 | 101 | Y | 10 | 5 | 2 | 0 | 0 | 0 | 10 5 |
| 71-61 | 2 | S .00720 | 51 | 102 | YY | 6 | 4 | 0 | 0 | 0 | 0 | 6 8 |
| 71-61 | 2 | S .00720 | 52 | 103 | YY | 5 | 7 | 0 | 2 | 0 | 0 | 5 7 |
| 71-61 | 2 | S .00720 | 52 | 104 | YY | 8 | 5 | 1 | 1 | 0 | 0 | 8 5 |
| 71-61 | 2 | S .00720 | 53 | 105 | YY | 5 | 8 | 0 | 0 | 1 | 3 | 5 8 |
| 71-61 | 2 | S .00720 | 53 | 106 | YY | 7 | 6 | 0 | 0 | 1 | 0 | 7 7 |
| 71-61 | 2 | S .00720 | 54 | 107 | YY | 6 | 4 | 0 | 0 | 0 | 1 | 7 4 |
| 71-61 | 2 | S .00720 | 54 | 108 | YY | 4 | 5 | 0 | 0 | 0 | 0 | 4 8 |
| 71-61 | 2 | S .00720 | 55 | 109 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 5 9 |
| 71-61 | 2 | S .00720 | 55 | 110 | YY | 4 | 8 | 1 | 0 | 0 | 0 | 4 8 |
| 71-61 | 2 | S .00720 | 56 | 111 | YY | 6 | 4 | 1 | 0 | 0 | 0 | 6 4 |
| 71-61 | 2 | S .00720 | 56 | 112 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 9 6 |
| 71-61 | 2 | S .00720 | 57 | 113 | YY | 5 | 8 | 0 | 0 | 0 | 0 | 5 8 |
| 71-61 | 2 | S .00720 | 57 | 114 | YY | 5 | 2 | 1 | 0 | 0 | 0 | 6 7 |
| 71-61 | 2 | S .00720 | 58 | 115 | YY | 7 | 9 | 0 | 0 | 0 | 0 | 8 9 |
| 71-61 | 2 | S .00720 | 58 | 116 | YY | 9 | 3 | 0 | 0 | 0 | 0 | 10 4 |
| 71-61 | 2 | S .00720 | 59 | 117 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 6 |
| 71-61 | 2 | S .00720 | 59 | 118 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 5 6 |
| 71-61 | 2 | S .00720 | 60 | 119 | YY | 7 | 3 | 0 | 0 | 0 | 0 | 8 7 |
| 71-61 | 2 | S .00720 | 60 | 120 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 5 9 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

UM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|--------|----------|------------|-------|----------|---|---|---|--------------|---|-------------|----|---------------|---|
| | | | | | | | L | R | L | R | L | R | L | R | L | R |
| 71-61 | 2 | S | .07200 | 61 | 121 | Y | 7 | 7 | 0 | 1 | 0 | 0 | 8 | 7 | | |
| 71-61 | 2 | S | .07200 | 61 | 122 | Y | 8 | 5 | 0 | 0 | 0 | 0 | 8 | 5 | | |
| 71-61 | 2 | S | .07200 | 62 | 123 | Y | 6 | 7 | 1 | 0 | 0 | 0 | 8 | 8 | | |
| 71-61 | 2 | S | .07200 | 62 | 124 | Y | 2 | 8 | 0 | 1 | 0 | 0 | 7 | 5 | | |
| 71-61 | 2 | S | .07200 | 63 | 125 | Y | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | | |
| 71-61 | 2 | S | .07200 | 63 | 126 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 7 | 8 | | |
| 71-61 | 2 | S | .07200 | 64 | 127 | Y | 7 | 8 | 0 | 0 | 0 | 0 | 8 | 3 | | |
| 71-61 | 2 | S | .07200 | 64 | 128 | Y | 7 | 3 | 0 | 0 | 0 | 1 | 9 | 6 | | |
| 71-61 | 2 | S | .07200 | 65 | 129 | Y | 9 | 5 | 0 | 0 | 1 | 1 | 6 | 4 | | |
| 71-61 | 2 | S | .07200 | 65 | 130 | Y | 6 | 4 | 0 | 0 | 0 | 0 | 6 | 7 | | |
| 71-61 | 2 | S | .07200 | 66 | 131 | Y | 5 | 7 | 0 | 1 | 1 | 0 | 6 | 6 | | |
| 71-61 | 2 | S | .07200 | 66 | 132 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 | | |
| 71-61 | 2 | S | .07200 | 67 | 133 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 5 | | |
| 71-61 | 2 | S | .07200 | 67 | 134 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 7 | | |
| 71-61 | 2 | S | .07200 | 68 | 135 | Y | 7 | 7 | 0 | 2 | 0 | 0 | 3 | 8 | | |
| 71-61 | 2 | S | .07200 | 68 | 136 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 8 | 5 | | |
| 71-61 | 2 | S | .07200 | 69 | 137 | Y | 8 | 5 | 0 | 1 | 0 | 0 | 10 | 5 | | |
| 71-61 | 2 | S | .07200 | 69 | 138 | Y | 10 | 5 | 0 | 0 | 0 | 0 | 8 | 3 | | |
| 71-61 | 2 | S | .07200 | 70 | 139 | Y | 7 | 3 | 1 | 0 | 0 | 1 | 7 | 6 | | |
| 71-61 | 2 | S | .07200 | 70 | 140 | Y | 7 | 6 | 1 | 0 | 1 | 1 | | | | |
| 71-61 | 2 | S | .72000 | 71 | 141 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 | 8 | | |
| 71-61 | 2 | S | .72000 | 71 | 142 | Y | 4 | 6 | 0 | 0 | 0 | 0 | 5 | 7 | | |
| 71-61 | 2 | S | .72000 | 72 | 143 | Y | 3 | 9 | 0 | 1 | 0 | 0 | 3 | 9 | | |
| 71-61 | 2 | S | .72000 | 72 | 144 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 3 | 9 | | |
| 71-61 | 2 | S | .72000 | 73 | 145 | Y | 3 | 7 | 0 | 0 | 0 | 1 | 3 | 9 | | |
| 71-61 | 2 | S | .72000 | 73 | 146 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 71-61 | 2 | S | .72000 | 74 | 147 | Y | 8 | 3 | 1 | 0 | 0 | 0 | 8 | 3 | | |
| 71-61 | 2 | S | .72000 | 74 | 148 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 7 | 8 | | |
| 71-61 | 2 | S | .72000 | 75 | 149 | Y | 6 | 6 | 1 | 1 | 0 | 0 | 7 | 6 | | |
| 71-61 | 2 | S | .72000 | 75 | 150 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 6 | | |
| 71-61 | 2 | S | .72000 | 76 | 151 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 8 | 5 | | |
| 71-61 | 2 | S | .72000 | 76 | 152 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 3 | 9 | | |
| 71-61 | 2 | S | .72000 | 77 | 153 | Y | 7 | 6 | 1 | 1 | 0 | 0 | 5 | 10 | | |
| 71-61 | 2 | S | .72000 | 77 | 154 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 7 | 4 | | |
| 71-61 | 2 | S | .72000 | 78 | 155 | Y | 5 | 2 | 0 | 0 | 0 | 0 | 10 | 3 | | |
| 71-61 | 2 | S | .72000 | 78 | 156 | Y | 3 | 3 | 0 | 0 | 0 | 0 | 7 | 4 | | |
| 71-61 | 2 | S | .72000 | 79 | 157 | Y | 4 | 9 | 0 | 5 | 0 | 0 | 5 | 11 | | |
| 71-61 | 2 | S | .72000 | 79 | 158 | Y | 8 | 1 | 0 | 0 | 0 | 0 | 11 | 2 | | |
| 71-61 | 2 | S | .72000 | 80 | 159 | Y | 5 | 8 | 0 | 1 | 0 | 0 | 11 | 5 | | |
| 71-61 | 2 | S | .72000 | 80 | 160 | Y | | | | | 1 | 4 | 5 | 9 | | |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|------|
| | | | | | | | L | R | L | R | L | R |
| TEM | 2 | S .00020 | 11 | 21 | Y | 0 | 1 | 0 | 1 | 0 | 0 | 7 3 |
| TEM | 2 | S .00020 | 11 | 22 | YY | 2 | 1 | 2 | 1 | 0 | 0 | 7 6 |
| TEM | 2 | S .00020 | 12 | 23 | YY | 1 | 2 | 1 | 2 | 0 | 0 | 8 4 |
| TEM | 2 | S .00020 | 12 | 24 | YY | 0 | 1 | 0 | 1 | 0 | 0 | 7 1 |
| TEM | 2 | S .00020 | 13 | 25 | NN | 1 | 2 | 1 | 2 | 0 | 0 | 11 3 |
| TEM | 2 | S .00020 | 13 | 26 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 14 | 27 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 14 | 28 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 15 | 29 | YY | 3 | 4 | 3 | 4 | 0 | 0 | 4 5 |
| TEM | 2 | S .00020 | 15 | 30 | YY | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 16 | 31 | YY | 4 | 2 | 4 | 2 | 0 | 0 | 8 6 |
| TEM | 2 | S .00020 | 16 | 32 | YY | 1 | 0 | 1 | 0 | 0 | 0 | 9 5 |
| TEM | 2 | S .00020 | 17 | 33 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 17 | 34 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 18 | 35 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 18 | 36 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 19 | 37 | NN | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 19 | 38 | NY | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| TEM | 2 | S .00020 | 20 | 39 | YY | 3 | 0 | 3 | 0 | 0 | 0 | 10 5 |
| TEM | 2 | S .00020 | 20 | 40 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| CONTROL | 2 | M 0.00000 | 1 | 1 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 4 8 |
| CONTROL | 2 | M 0.00000 | 1 | 2 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 5 10 |
| CONTROL | 2 | M 0.00000 | 2 | 3 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 7 8 |
| CONTROL | 2 | M 0.00000 | 2 | 4 | YY | 8 | 6 | 0 | 0 | 1 | 0 | 8 6 |
| CONTROL | 2 | M 0.00000 | 3 | 5 | YY | 5 | 2 | 0 | 0 | 0 | 0 | 5 8 |
| CONTROL | 2 | M 0.00000 | 3 | 6 | YY | 5 | 5 | 0 | 0 | 0 | 0 | 5 6 |
| CONTROL | 2 | M 0.00000 | 4 | 7 | YY | 8 | 2 | 0 | 0 | 2 | 0 | 8 2 |
| CONTROL | 2 | M 0.00000 | 4 | 8 | NY | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| CONTROL | 2 | M 0.00000 | 5 | 9 | YY | 7 | 5 | 0 | 0 | 0 | 0 | 8 5 |
| CONTROL | 2 | M 0.00000 | 5 | 10 | YY | 3 | 8 | 0 | 0 | 0 | 0 | 3 8 |
| CONTROL | 2 | M 0.00000 | 6 | 11 | YY | 6 | 6 | 1 | 0 | 1 | 1 | 6 6 |
| CONTROL | 2 | M 0.00000 | 6 | 12 | YY | 7 | 7 | 0 | 0 | 0 | 0 | 7 7 |
| CONTROL | 2 | M 0.00000 | 7 | 13 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 6 6 |
| CONTROL | 2 | M 0.00000 | 7 | 14 | YY | 7 | 5 | 1 | 0 | 0 | 1 | 7 5 |
| CONTROL | 2 | M 0.00000 | 8 | 15 | YY | 10 | 5 | 3 | 2 | 0 | 0 | 10 5 |
| CONTROL | 2 | M 0.00000 | 8 | 16 | YY | 5 | 8 | 0 | 2 | 0 | 0 | 6 8 |
| CONTROL | 2 | M 0.00000 | 9 | 17 | YY | 6 | 9 | 0 | 2 | 0 | 0 | 6 9 |
| CONTROL | 2 | M 0.00000 | 9 | 18 | YY | 5 | 9 | 0 | 2 | 0 | 0 | 6 9 |
| CONTROL | 2 | M 0.00000 | 10 | 19 | YY | 6 | 6 | 3 | 2 | 0 | 3 | 6 6 |
| CONTROL | 2 | M 0.00000 | 10 | 20 | YY | 8 | 5 | 0 | 2 | 0 | 0 | 8 5 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|--------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|------|
| | | | | | | | | L | R | L | R | L | R |
| 71-61 | 2 | M | .00720 | 41 | 81 | Y | 6 | 8 | 0 | 1 | 0 | 0 | 6 9 |
| 71-61 | 2 | M | .00720 | 41 | 82 | Y | 3 | 9 | 0 | 0 | 0 | 0 | 4 10 |
| 71-61 | 2 | M | .00720 | 42 | 83 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 8 |
| 71-61 | 2 | M | .00720 | 42 | 84 | Y | 5 | 9 | 1 | 0 | 0 | 0 | 5 9 |
| 71-61 | 2 | M | .00720 | 43 | 85 | Y | 5 | 10 | 1 | 2 | 2 | 1 | 6 11 |
| 71-61 | 2 | M | .00720 | 43 | 86 | Y | 4 | 10 | 0 | 1 | 0 | 0 | 4 10 |
| 71-61 | 2 | M | .00720 | 44 | 87 | Y | 7 | 8 | 1 | 0 | 0 | 0 | 7 8 |
| 71-61 | 2 | M | .00720 | 44 | 88 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 7 |
| 71-61 | 2 | M | .00720 | 45 | 89 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 5 9 |
| 71-61 | 2 | M | .00720 | 45 | 90 | Y | 10 | 4 | 0 | 0 | 0 | 0 | 10 6 |
| 71-61 | 2 | M | .00720 | 46 | 91 | Y | 3 | 9 | 0 | 0 | 1 | 0 | 3 10 |
| 71-61 | 2 | M | .00720 | 46 | 92 | Y | 6 | 9 | 0 | 1 | 0 | 0 | 7 9 |
| 71-61 | 2 | M | .00720 | 47 | 93 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 5 |
| 71-61 | 2 | M | .00720 | 47 | 94 | Y | 5 | 7 | 0 | 2 | 0 | 0 | 5 7 |
| 71-61 | 2 | M | .00720 | 48 | 95 | Y | 5 | 8 | 0 | 0 | 0 | 3 | 5 9 |
| 71-61 | 2 | M | .00720 | 48 | 96 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 8 |
| 71-61 | 2 | M | .00720 | 49 | 97 | Y | 2 | 3 | 1 | 0 | 0 | 0 | 5 7 |
| 71-61 | 2 | M | .00720 | 49 | 98 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 5 |
| 71-61 | 2 | M | .00720 | 50 | 99 | Y | 2 | 10 | 0 | 0 | 0 | 0 | 3 10 |
| 71-61 | 2 | M | .00720 | 50 | 100 | Y | 8 | 7 | 2 | 1 | 0 | 0 | 8 9 |
| 71-61 | 2 | M | .07200 | 51 | 101 | Y | 6 | 5 | 1 | 0 | 0 | 0 | 7 5 |
| 71-61 | 2 | M | .07200 | 51 | 102 | Y | 5 | 6 | 0 | 1 | 0 | 0 | 5 7 |
| 71-61 | 2 | M | .07200 | 52 | 103 | Y | 6 | 7 | 1 | 0 | 0 | 1 | 6 8 |
| 71-61 | 2 | M | .07200 | 52 | 104 | Y | 9 | 6 | 0 | 0 | 0 | 0 | 9 6 |
| 71-61 | 2 | M | .07200 | 53 | 105 | Y | 8 | 5 | 3 | 2 | 2 | 0 | 9 5 |
| 71-61 | 2 | M | .07200 | 53 | 106 | Y | 4 | 8 | 0 | 0 | 0 | 0 | 4 8 |
| 71-61 | 2 | M | .07200 | 54 | 107 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 9 |
| 71-61 | 2 | M | .07200 | 54 | 108 | Y | 8 | 6 | 1 | 0 | 0 | 0 | 9 6 |
| 71-61 | 2 | M | .07200 | 55 | 109 | Y | 4 | 6 | 0 | 1 | 0 | 0 | 6 6 |
| 71-61 | 2 | M | .07200 | 55 | 110 | Y | 4 | 6 | 0 | 1 | 0 | 0 | 5 7 |
| 71-61 | 2 | M | .07200 | 56 | 111 | Y | 8 | 5 | 0 | 0 | 0 | 0 | 8 7 |
| 71-61 | 2 | M | .07200 | 56 | 112 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 8 |
| 71-61 | 2 | M | .07200 | 57 | 113 | Y | 5 | 4 | 0 | 0 | 0 | 0 | 5 6 |
| 71-61 | 2 | M | .07200 | 57 | 114 | Y | 8 | 5 | 1 | 0 | 0 | 0 | 8 6 |
| 71-61 | 2 | M | .07200 | 58 | 115 | Y | 11 | 2 | 0 | 0 | 2 | 0 | 11 2 |
| 71-61 | 2 | M | .07200 | 58 | 116 | Y | 5 | 6 | 2 | 2 | 0 | 2 | 6 7 |
| 71-61 | 2 | M | .07200 | 59 | 117 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 9 5 |
| 71-61 | 2 | M | .07200 | 59 | 118 | Y | 7 | 4 | 0 | 0 | 0 | 0 | 9 5 |
| 71-61 | 2 | M | .07200 | 60 | 119 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 8 |
| 71-61 | 2 | M | .07200 | 60 | 120 | Y | 5 | 5 | 0 | 0 | 0 | 0 | 6 5 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|---------------|------|-----|--------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|----|---|
| | | | | | | | | L | R | L' | R | L | R | |
| 71-61 | 2 | M | .72000 | 61 | 121 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 2 | M | .72000 | 61 | 122 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 2 | M | .72000 | 62 | 123 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 2 | M | .72000 | 62 | 124 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 2 | M | .72000 | 63 | 125 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 2 | M | .72000 | 63 | 126 | YY | 6 | 9 | 0 | 1 | 0 | 1 | 6 | 9 |
| 71-61 | 2 | M | .72000 | 64 | 127 | YY | 9 | 3 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 2 | M | .72000 | 64 | 128 | YY | 2 | 2 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 2 | M | .72000 | 65 | 129 | YY | 7 | 7 | 0 | 2 | 0 | 0 | 8 | 7 |
| 71-61 | 2 | M | .72000 | 65 | 130 | YY | 8 | 5 | 1 | 1 | 0 | 0 | 8 | 5 |
| 71-61 | 2 | M | .72000 | 66 | 131 | YY | 8 | 4 | 0 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 2 | M | .72000 | 66 | 132 | YY | 8 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 2 | M | .72000 | 67 | 133 | YY | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 2 | M | .72000 | 67 | 134 | YY | 4 | 9 | 0 | 1 | 0 | 0 | 4 | 9 |
| 71-61 | 2 | M | .72000 | 68 | 135 | YY | 9 | 6 | 0 | 0 | 0 | 0 | 10 | 6 |
| 71-61 | 2 | M | .72000 | 68 | 136 | YY | 5 | 8 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 2 | M | .72000 | 69 | 137 | Y | 6 | 8 | 1 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 2 | M | .72000 | 69 | 138 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 2 | M | .72000 | 70 | 139 | Y | 6 | 8 | 1 | 0 | 0 | 0 | 6 | 9 |
| 71-61 | 2 | M | .72000 | 70 | 140 | Y | 5 | 4 | 2 | 1 | 0 | 0 | 8 | 4 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|-------|
| | | | | | | | L | R | L | R | L | R |
| CONTROL | 3 | S 0.00000 | 1 | 1 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 9 |
| CONTROL | 3 | S 0.00000 | 1 | 2 | YY | 6 | 8 | 1 | 2 | 0 | 1 | 6 8 |
| CONTROL | 3 | S 0.00000 | 2 | 3 | YY | 5 | 6 | 0 | 1 | 0 | 0 | 6 7 |
| CONTROL | 3 | S 0.00000 | 2 | 4 | YY | 2 | 9 | 2 | 1 | 0 | 0 | 2 10 |
| CONTROL | 3 | S 0.00000 | 3 | 5 | YY | 3 | 10 | 0 | 0 | 0 | 0 | 3 10 |
| CONTROL | 3 | S 0.00000 | 3 | 6 | YY | 8 | 7 | 0 | 0 | 3 | 0 | 8 7 |
| CONTROL | 3 | S 0.00000 | 4 | 7 | YY | 6 | 4 | 0 | 0 | 1 | 0 | 8 4 |
| CONTROL | 3 | S 0.00000 | 4 | 8 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 8 6 |
| CONTROL | 3 | S 0.00000 | 5 | 9 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 6 |
| CONTROL | 3 | S 0.00000 | 5 | 10 | YY | 8 | 4 | 0 | 0 | 2 | 2 | 8 4 |
| CONTROL | 3 | S 0.00000 | 6 | 11 | YY | 8 | 4 | 0 | 0 | 1 | 0 | 8 4 |
| CONTROL | 3 | S 0.00000 | 6 | 12 | YY | 5 | 10 | 0 | 0 | 0 | 0 | 5 10 |
| CONTROL | 3 | S 0.00000 | 7 | 13 | YY | 1 | 7 | 0 | 0 | 0 | 0 | 1 11 |
| CONTROL | 3 | S 0.00000 | 7 | 14 | YY | 6 | 0 | 0 | 0 | 0 | 0 | 6 10 |
| CONTROL | 3 | S 0.00000 | 8 | 15 | YY | 5 | 9 | 0 | 0 | 2 | 3 | 6 10 |
| CONTROL | 3 | S 0.00000 | 8 | 16 | YY | 6 | 6 | 0 | 1 | 1 | 0 | 9 7 |
| CONTROL | 3 | S 0.00000 | 9 | 17 | YY | 10 | 5 | 0 | 0 | 0 | 2 | 10 5 |
| CONTROL | 3 | S 0.00000 | 9 | 18 | YY | 4 | 8 | 0 | 0 | 0 | 0 | 6 8 |
| CONTROL | 3 | S 0.00000 | 10 | 19 | YY | 3 | 10 | 0 | 0 | 1 | 0 | 3 10 |
| CONTROL | 3 | S 0.00000 | 10 | 20 | Y | 6 | 7 | 1 | 0 | 0 | 0 | 6 7 |
| 71-61 | 3 | S .00720 | 51 | 101 | Y | 4 | 8 | 0 | 1 | 0 | 0 | 4 8 |
| 71-61 | 3 | S .00720 | 51 | 102 | YY | 5 | 8 | 1 | 0 | 2 | 0 | 5 8 |
| 71-61 | 3 | S .00720 | 52 | 103 | YY | 4 | 8 | 0 | 2 | 0 | 0 | 5 8 |
| 71-61 | 3 | S .00720 | 52 | 104 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 6 7 |
| 71-61 | 3 | S .00720 | 53 | 105 | YY | 7 | 7 | 0 | 0 | 0 | 0 | 7 7 |
| 71-61 | 3 | S .00720 | 53 | 106 | YY | 5 | 9 | 2 | 2 | 0 | 0 | 5 9 |
| 71-61 | 3 | S .00720 | 54 | 107 | YY | 9 | 5 | 0 | 0 | 0 | 0 | 9 6 |
| 71-61 | 3 | S .00720 | 54 | 108 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 8 5 |
| 71-61 | 3 | S .00720 | 55 | 109 | YY | 6 | 7 | 0 | 1 | 0 | 0 | 6 7 |
| 71-61 | 3 | S .00720 | 55 | 110 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 7 7 |
| 71-61 | 3 | S .00720 | 56 | 111 | YY | 4 | 7 | 0 | 0 | 0 | 0 | 5 7 |
| 71-61 | 3 | S .00720 | 56 | 112 | YY | 9 | 6 | 0 | 1 | 0 | 0 | 9 6 |
| 71-61 | 3 | S .00720 | 57 | 113 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| 71-61 | 3 | S .00720 | 57 | 114 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 8 7 |
| 71-61 | 3 | S .00720 | 58 | 115 | YY | 4 | 8 | 0 | 0 | 0 | 0 | 4 8 |
| 71-61 | 3 | S .00720 | 58 | 116 | YY | 5 | 6 | 0 | 0 | 0 | 1 | 5 6 |
| 71-61 | 3 | S .00720 | 59 | 117 | YY | 6 | 9 | 1 | 1 | 0 | 0 | 10 10 |
| 71-61 | 3 | S .00720 | 59 | 118 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 6 8 |
| 71-61 | 3 | S .00720 | 60 | 119 | YY | 5 | 10 | 0 | 0 | 0 | 0 | 6 10 |
| 71-61 | 3 | S .00720 | 60 | 120 | Y | 8 | 4 | 0 | 0 | 2 | 0 | 9 4 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|----|-----------------|---|----------------|---|------------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 3 | S | .07200 | 61 | 121 | Y | 4 | 8 | 0 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 3 | S | .07200 | 61 | 122 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 3 | S | .07200 | 62 | 123 | YY | 7 | 5 | 1 | 0 | 0 | 1 | 7 | 5 |
| 71-61 | 3 | S | .07200 | 62 | 124 | YY | 7 | 6 | 1 | 0 | 0 | 1 | 8 | 6 |
| 71-61 | 3 | S | .07200 | 63 | 125 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 3 | S | .07200 | 63 | 126 | YY | 6 | 6 | 0 | 0 | 4 | 0 | 8 | 6 |
| 71-61 | 3 | S | .07200 | 64 | 127 | YY | 8 | 5 | 1 | 0 | 0 | 1 | 8 | 6 |
| 71-61 | 3 | S | .07200 | 64 | 128 | YY | 4 | 8 | 0 | 1 | 0 | 0 | 4 | 8 |
| 71-61 | 3 | S | .07200 | 65 | 129 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | S | .07200 | 65 | 130 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 3 | S | .07200 | 66 | 131 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 3 | S | .07200 | 66 | 132 | YY | 6 | 4 | 0 | 0 | 0 | 0 | 6 | 4 |
| 71-61 | 3 | S | .07200 | 67 | 133 | YY | 3 | 9 | 0 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 3 | S | .07200 | 67 | 134 | YY | 6 | 4 | 1 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | S | .07200 | 68 | 135 | YY | 6 | 6 | 0 | 1 | 0 | 0 | 6 | 6 |
| 71-61 | 3 | S | .07200 | 68 | 136 | YY | 11 | 3 | 0 | 0 | 1 | 0 | 11 | 3 |
| 71-61 | 3 | S | .07200 | 69 | 137 | YY | 5 | 9 | 0 | 0 | 1 | 0 | 5 | 10 |
| 71-61 | 3 | S | .07200 | 69 | 138 | YY | 9 | 6 | 0 | 1 | 0 | 0 | 9 | 7 |
| 71-61 | 3 | S | .07200 | 70 | 139 | YY | 7 | 5 | 1 | 1 | 1 | 1 | 7 | 6 |
| 71-61 | 3 | S | .07200 | 70 | 140 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 3 | S | .72000 | 71 | 141 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 3 | S | .72000 | 71 | 142 | YY | 6 | 5 | 0 | 1 | 0 | 0 | 6 | 6 |
| 71-61 | 3 | S | .72000 | 72 | 143 | YY | 5 | 6 | 0 | 1 | 0 | 0 | 6 | 7 |
| 71-61 | 3 | S | .72000 | 72 | 144 | YY | 7 | 3 | 1 | 0 | 0 | 0 | 7 | 3 |
| 71-61 | 3 | S | .72000 | 73 | 145 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 3 | S | .72000 | 73 | 146 | YY | 5 | 6 | 1 | 1 | 0 | 0 | 8 | 11 |
| 71-61 | 3 | S | .72000 | 74 | 147 | YY | 3 | 4 | 0 | 0 | 0 | 0 | 3 | 7 |
| 71-61 | 3 | S | .72000 | 74 | 148 | YY | 7 | 4 | 0 | 2 | 0 | 0 | 7 | 4 |
| 71-61 | 3 | S | .72000 | 75 | 149 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 6 | 9 |
| 71-61 | 3 | S | .72000 | 75 | 150 | YY | 6 | 5 | 1 | 0 | 2 | 0 | 6 | 5 |
| 71-61 | 3 | S | .72000 | 76 | 151 | YY | 4 | 5 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 3 | S | .72000 | 76 | 152 | YY | 8 | 7 | 1 | 0 | 1 | 0 | 8 | 8 |
| 71-61 | 3 | S | .72000 | 77 | 153 | YY | 3 | 13 | 0 | 1 | 0 | 0 | 4 | 13 |
| 71-61 | 3 | S | .72000 | 77 | 154 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 6 | 9 |
| 71-61 | 3 | S | .72000 | 78 | 155 | YY | 5 | 8 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 3 | S | .72000 | 78 | 156 | YY | 5 | 7 | 2 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 3 | S | .72000 | 79 | 157 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 3 | 8 |
| 71-61 | 3 | S | .72000 | 79 | 158 | YY | 3 | 8 | 1 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 3 | S | .72000 | 80 | 159 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 12 | 6 |
| 71-61 | 3 | S | .72000 | 80 | 160 | Y | 8 | 5 | 0 | 0 | 0 | 0 | | |

DOMINANT LFTHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PRFG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|---------------|------|-----|---------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|---|----|
| | | | | | | | | L | R | L | R | L | R | |
| TEM | 3 | S | .00020 | 11 | 21 | Y | 2 | 0 | 2 | 0 | 0 | 0 | 6 | 4 |
| TEM | 3 | S | .00020 | 11 | 22 | Y | 1 | 2 | 1 | 2 | 0 | 0 | 6 | 6 |
| TEM | 3 | S | .00020 | 12 | 23 | Y | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 6 |
| TEM | 3 | S | .00020 | 12 | 24 | Y | 2 | 0 | 2 | 0 | 0 | 0 | 8 | 4 |
| TEM | 3 | S | .00020 | 13 | 25 | Y | 1 | 0 | 1 | 0 | 0 | 0 | 7 | 6 |
| TEM | 3 | S | .00020 | 13 | 26 | Y | 0 | 1 | 0 | 1 | 0 | 0 | 5 | 5 |
| TEM | 3 | S | .00020 | 14 | 27 | Y | 1 | 0 | 0 | 1 | 0 | 0 | 4 | 4 |
| TEM | 3 | S | .00020 | 14 | 28 | Y | 0 | 1 | 0 | 1 | 0 | 0 | 5 | 7 |
| TEM | 3 | S | .00020 | 15 | 29 | Y | 2 | 0 | 2 | 0 | 0 | 0 | 3 | 6 |
| TEM | 3 | S | .00020 | 15 | 30 | Y | 0 | 1 | 0 | 1 | 0 | 0 | 8 | 12 |
| TEM | 3 | S | .00020 | 16 | 31 | Y | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 8 |
| TEM | 3 | S | .00020 | 16 | 32 | Y | 0 | 2 | 0 | 2 | 0 | 0 | 5 | 6 |
| TEM | 3 | S | .00020 | 17 | 33 | Y | 2 | 6 | 0 | 2 | 0 | 0 | 4 | 9 |
| TEM | 3 | S | .00020 | 17 | 34 | Y | 4 | 9 | 2 | 6 | 0 | 0 | 0 | 0 |
| TEM | 3 | S | .00020 | 18 | 35 | N | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 9 |
| TEM | 3 | S | .00020 | 18 | 36 | Y | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TEM | 3 | S | .00020 | 19 | 37 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 3 | S | .00020 | 19 | 38 | Y | 0 | 1 | 0 | 1 | 0 | 0 | 5 | 8 |
| TEM | 3 | S | .00020 | 20 | 39 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 3 | S | .00020 | 20 | 40 | Y | 2 | 0 | 2 | 0 | 0 | 0 | 9 | 4 |
| CONTROL | 3 | M | 0.00000 | 1 | 1 | Y | 8 | 4 | 1 | 0 | 0 | 0 | 8 | 4 |
| CONTROL | 3 | M | 0.00000 | 1 | 2 | Y | 6 | 8 | 0 | 2 | 0 | 0 | 6 | 8 |
| CONTROL | 3 | M | 0.00000 | 2 | 3 | Y | 5 | 8 | 1 | 2 | 0 | 0 | 5 | 8 |
| CONTROL | 3 | M | 0.00000 | 2 | 4 | Y | 5 | 8 | 0 | 1 | 0 | 0 | 6 | 8 |
| CONTROL | 3 | M | 0.00000 | 3 | 5 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 6 |
| CONTROL | 3 | M | 0.00000 | 3 | 6 | Y | 2 | 11 | 0 | 0 | 0 | 0 | 2 | 11 |
| CONTROL | 3 | M | 0.00000 | 4 | 7 | Y | 7 | 9 | 0 | 0 | 0 | 0 | 8 | 9 |
| CONTROL | 3 | M | 0.00000 | 4 | 8 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL | 3 | M | 0.00000 | 5 | 9 | Y | 6 | 7 | 0 | 1 | 1 | 0 | 6 | 7 |
| CONTROL | 3 | M | 0.00000 | 5 | 10 | Y | 8 | 3 | 0 | 0 | 0 | 0 | 8 | 4 |
| CONTROL | 3 | M | 0.00000 | 6 | 11 | Y | 3 | 6 | 0 | 0 | 1 | 1 | 4 | 7 |
| CONTROL | 3 | M | 0.00000 | 6 | 12 | Y | 8 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| CONTROL | 3 | M | 0.00000 | 7 | 13 | Y | 8 | 8 | 0 | 0 | 0 | 0 | 8 | 8 |
| CONTROL | 3 | M | 0.00000 | 7 | 14 | Y | 3 | 8 | 1 | 1 | 0 | 0 | 3 | 8 |
| CONTROL | 3 | M | 0.00000 | 8 | 15 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| CONTROL | 3 | M | 0.00000 | 8 | 16 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 9 | 3 |
| CONTROL | 3 | M | 0.00000 | 9 | 17 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| CONTROL | 3 | M | 0.00000 | 9 | 18 | Y | 6 | 5 | 1 | 0 | 1 | 0 | 8 | 5 |
| CONTROL | 3 | M | 0.00000 | 10 | 19 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 | 8 |
| CONTROL | 3 | M | 0.00000 | 10 | 20 | Y | 2 | 8 | 0 | 0 | 0 | 0 | 2 | 9 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|--------|----------|------------|-------|----------|----|--------------|---|-------------|---|---------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 3 | M | .00720 | 41 | 81 | Y | 5 | 9 | 0 | 1 | 0 | 0 | 5 | 9 |
| 71-61 | 3 | M | .00720 | 41 | 82 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 3 | M | .00720 | 42 | 83 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | M | .00720 | 42 | 84 | Y | 4 | 9 | 0 | 0 | 0 | 1 | 4 | 9 |
| 71-61 | 3 | M | .00720 | 43 | 85 | Y | 6 | 10 | 0 | 0 | 0 | 0 | 7 | 10 |
| 71-61 | 3 | M | .00720 | 43 | 86 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 3 | M | .00720 | 44 | 87 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 3 | M | .00720 | 44 | 88 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 3 | M | .00720 | 45 | 89 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 3 | M | .00720 | 45 | 90 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 3 | M | .00720 | 46 | 91 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 3 | M | .00720 | 46 | 92 | Y | 8 | 6 | 0 | 1 | 0 | 0 | 8 | 7 |
| 71-61 | 3 | M | .00720 | 47 | 93 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 3 | M | .00720 | 47 | 94 | Y | 6 | 6 | 1 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 3 | M | .00720 | 48 | 95 | Y | 6 | 3 | 0 | 1 | 0 | 0 | 7 | 3 |
| 71-61 | 3 | M | .00720 | 48 | 96 | Y | 4 | 9 | 0 | 0 | 2 | 3 | 4 | 9 |
| 71-61 | 3 | M | .00720 | 49 | 97 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 3 | M | .00720 | 49 | 98 | Y | 9 | 6 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 3 | M | .00720 | 50 | 99 | Y | 9 | 5 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 3 | M | .00720 | 50 | 100 | Y | 8 | 6 | 0 | 1 | 1 | 0 | 9 | 7 |
| 71-61 | 3 | M | .07200 | 51 | 101 | Y | 8 | 5 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 3 | M | .07200 | 51 | 102 | Y | 5 | 8 | 0 | 0 | 0 | 1 | 8 | 8 |
| 71-61 | 3 | M | .07200 | 52 | 103 | Y | 4 | 10 | 1 | 0 | 0 | 1 | 4 | 10 |
| 71-61 | 3 | M | .07200 | 52 | 104 | Y | 10 | 2 | 0 | 0 | 0 | 0 | 10 | 2 |
| 71-61 | 3 | M | .07200 | 53 | 105 | Y | 5 | 10 | 0 | 0 | 2 | 5 | 10 | 5 |
| 71-61 | 3 | M | .07200 | 53 | 106 | Y | 4 | 8 | 0 | 1 | 0 | 0 | 5 | 8 |
| 71-61 | 3 | M | .07200 | 54 | 107 | Y | 3 | 11 | 0 | 0 | 0 | 0 | 3 | 11 |
| 71-61 | 3 | M | .07200 | 54 | 108 | Y | 7 | 9 | 0 | 0 | 0 | 0 | 7 | 10 |
| 71-61 | 3 | M | .07200 | 55 | 109 | Y | 9 | 7 | 0 | 0 | 0 | 0 | 10 | 7 |
| 71-61 | 3 | M | .07200 | 55 | 110 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 3 | M | .07200 | 56 | 111 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 3 | M | .07200 | 56 | 112 | Y | 3 | 9 | 0 | 0 | 0 | 0 | 3 | 11 |
| 71-61 | 3 | M | .07200 | 57 | 113 | Y | 7 | 5 | 0 | 0 | 0 | 1 | 8 | 7 |
| 71-61 | 3 | M | .07200 | 57 | 114 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 3 | M | .07200 | 58 | 115 | Y | 6 | 6 | 2 | 0 | 1 | 0 | 6 | 6 |
| 71-61 | 3 | M | .07200 | 58 | 116 | Y | 4 | 2 | 0 | 0 | 0 | 1 | 13 | 6 |
| 71-61 | 3 | M | .07200 | 59 | 117 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 3 | M | .07200 | 59 | 118 | Y | 9 | 6 | 0 | 0 | 0 | 2 | 9 | 6 |
| 71-61 | 3 | M | .07200 | 60 | 119 | Y | 7 | 4 | 3 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 3 | M | .07200 | 60 | 120 | Y | 2 | 6 | 0 | 0 | 0 | 0 | 3 | 9 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|---|-----------------|---|----------------|---|------------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 3 | M | .72000 | 61 | 121 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 3 | M | .72000 | 61 | 122 | Y | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 11 |
| 71-61 | 3 | M | .72000 | 62 | 123 | Y | 7 | 5 | 3 | 1 | 0 | 0 | 8 | 6 |
| 71-61 | 3 | M | .72000 | 62 | 124 | Y | 7 | 6 | 0 | 1 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | M | .72000 | 63 | 125 | Y | 8 | 7 | 1 | 0 | 1 | 0 | 8 | 8 |
| 71-61 | 3 | M | .72000 | 63 | 126 | Y | 6 | 6 | 0 | 1 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | M | .72000 | 64 | 127 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | M | .72000 | 64 | 128 | Y | 10 | 4 | 2 | 1 | 1 | 0 | 11 | 4 |
| 71-61 | 3 | M | .72000 | 65 | 129 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 3 | M | .72000 | 65 | 130 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 3 | M | .72000 | 66 | 131 | Y | 6 | 6 | 4 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 3 | M | .72000 | 66 | 132 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 3 | M | .72000 | 67 | 133 | Y | 7 | 6 | 1 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | M | .72000 | 67 | 134 | Y | 7 | 8 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 3 | M | .72000 | 68 | 135 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | M | .72000 | 68 | 136 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 3 | M | .72000 | 69 | 137 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 3 | M | .72000 | 69 | 138 | Y | 6 | 4 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 3 | M | .72000 | 70 | 139 | Y | 6 | 9 | 0 | 0 | 0 | 0 | 9 | 9 |
| 71-61 | 3 | M | .72000 | 70 | 140 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|---------|-------------|---------------|-------|----------|----|-----------------|---|----------------|---|------------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| CONTROL | 4 | S | 0.00000 | 1 | 1 | Y | 4 | 9 | 0 | 0 | 0 | 0 | 4 | 9 |
| CONTROL | 4 | S | 0.00000 | 1 | 2 | YY | 4 | 7 | 0 | 0 | 0 | 1 | 5 | 9 |
| CONTROL | 4 | S | 0.00000 | 2 | 3 | YY | 5 | 9 | 0 | 0 | 1 | 1 | 5 | 10 |
| CONTROL | 4 | S | 0.00000 | 2 | 4 | YY | 4 | 1 | 0 | 1 | 0 | 0 | 7 | 9 |
| CONTROL | 4 | S | 0.00000 | 3 | 5 | YY | 6 | 9 | 0 | 0 | 0 | 1 | 6 | 9 |
| CONTROL | 4 | S | 0.00000 | 3 | 6 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| CONTROL | 4 | S | 0.00000 | 4 | 7 | YY | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 7 |
| CONTROL | 4 | S | 0.00000 | 4 | 8 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 7 | 8 |
| CONTROL | 4 | S | 0.00000 | 5 | 9 | YY | 6 | 6 | 0 | 0 | 3 | 1 | 6 | 7 |
| CONTROL | 4 | S | 0.00000 | 5 | 10 | YY | 10 | 2 | 0 | 0 | 0 | 0 | 10 | 4 |
| CONTROL | 4 | S | 0.00000 | 6 | 11 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL | 4 | S | 0.00000 | 6 | 12 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 7 | 9 |
| CONTROL | 4 | S | 0.00000 | 7 | 13 | YY | 6 | 7 | 0 | 1 | 0 | 0 | 6 | 7 |
| CONTROL | 4 | S | 0.00000 | 7 | 14 | YY | 3 | 8 | 1 | 0 | 0 | 0 | 3 | 10 |
| CONTROL | 4 | S | 0.00000 | 8 | 15 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 4 |
| CONTROL | 4 | S | 0.00000 | 8 | 16 | YY | 8 | 6 | 4 | 1 | 0 | 1 | 8 | 6 |
| CONTROL | 4 | S | 0.00000 | 9 | 17 | YY | 10 | 4 | 0 | 0 | 0 | 0 | 11 | 4 |
| CONTROL | 4 | S | 0.00000 | 9 | 18 | YY | 9 | 7 | 1 | 1 | 0 | 0 | 9 | 7 |
| CONTROL | 4 | S | 0.00000 | 10 | 19 | YY | 4 | 6 | 0 | 0 | 2 | 1 | 4 | 7 |
| CONTROL | 4 | S | 0.00000 | 10 | 20 | Y | 6 | 8 | 4 | 4 | 0 | 0 | 7 | 9 |
| 71-61 | 4 | S | .00720 | 51 | 101 | Y | 4 | 10 | 0 | 0 | 0 | 0 | 5 | 10 |
| 71-61 | 4 | S | .00720 | 51 | 102 | YY | 7 | 5 | 1 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 4 | S | .00720 | 52 | 103 | YY | 7 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 4 | S | .00720 | 52 | 104 | YY | 3 | 9 | 0 | 1 | 0 | 0 | 3 | 9 |
| 71-61 | 4 | S | .00720 | 53 | 105 | YY | 3 | 9 | 0 | 0 | 1 | 2 | 4 | 9 |
| 71-61 | 4 | S | .00720 | 53 | 106 | YY | 9 | 5 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 4 | S | .00720 | 54 | 107 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 8 | 9 |
| 71-61 | 4 | S | .00720 | 54 | 108 | YY | 7 | 7 | 0 | 0 | 0 | 0 | 8 | 7 |
| 71-61 | 4 | S | .00720 | 55 | 109 | YY | 5 | 4 | 0 | 0 | 0 | 0 | 10 | 5 |
| 71-61 | 4 | S | .00720 | 55 | 110 | YY | 8 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 4 | S | .00720 | 56 | 111 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 4 | S | .00720 | 56 | 112 | Y | 12 | 4 | 0 | 0 | 0 | 0 | 12 | 4 |
| 71-61 | 4 | S | .00720 | 57 | 113 | YY | 8 | 7 | 0 | 1 | 1 | 0 | 8 | 7 |
| 71-61 | 4 | S | .00720 | 57 | 114 | YY | 7 | 6 | 1 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 4 | S | .00720 | 58 | 115 | YY | 7 | 10 | 0 | 1 | 0 | 0 | 8 | 12 |
| 71-61 | 4 | S | .00720 | 58 | 116 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 4 | S | .00720 | 59 | 117 | YY | 7 | 8 | 0 | 0 | 2 | 2 | 5 | 10 |
| 71-61 | 4 | S | .00720 | 59 | 118 | YY | 4 | 10 | 0 | 0 | 0 | 0 | 7 | 11 |
| 71-61 | 4 | S | .00720 | 60 | 119 | YY | 7 | 10 | 0 | 0 | 0 | 0 | 7 | 9 |
| 71-61 | 4 | S | .00720 | 60 | 120 | Y | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 9 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 4 | S | .07200 | 61 | 121 | Y | 5 | 8 | 1 | 0 | 1 | 0 | 6 | 9 |
| 71-61 | 4 | S | .07200 | 61 | 122 | Y | 4 | 8 | 0 | 0 | 0 | 1 | 4 | 9 |
| 71-61 | 4 | S | .07200 | 62 | 123 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 4 | S | .07200 | 62 | 124 | Y | 8 | 5 | 2 | 0 | 0 | 0 | 8 | 9 |
| 71-61 | 4 | S | .07200 | 63 | 125 | Y | 8 | 6 | 2 | 1 | 1 | 1 | 8 | 6 |
| 71-61 | 4 | S | .07200 | 63 | 126 | Y | 5 | 11 | 1 | 2 | 1 | 3 | 5 | 12 |
| 71-61 | 4 | S | .07200 | 64 | 127 | Y | 8 | 3 | 1 | 0 | 0 | 0 | 11 | 3 |
| 71-61 | 4 | S | .07200 | 64 | 128 | Y | 3 | 12 | 0 | 0 | 0 | 0 | 3 | 12 |
| 71-61 | 4 | S | .07200 | 65 | 129 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 4 | S | .07200 | 65 | 130 | Y | 6 | 8 | 0 | 1 | 0 | 0 | 6 | 8 |
| 71-61 | 4 | S | .07200 | 66 | 131 | Y | 6 | 0 | 0 | 0 | 1 | 0 | 8 | 6 |
| 71-61 | 4 | S | .07200 | 66 | 132 | Y | 6 | 7 | 0 | 0 | 1 | 1 | 6 | 8 |
| 71-61 | 4 | S | .07200 | 67 | 133 | Y | 5 | 7 | 2 | 0 | 0 | 0 | 11 | 8 |
| 71-61 | 4 | S | .07200 | 67 | 134 | Y | 5 | 7 | 0 | 0 | 1 | 0 | 6 | 9 |
| 71-61 | 4 | S | .07200 | 68 | 135 | Y | 10 | 7 | 1 | 1 | 2 | 2 | 10 | 8 |
| 71-61 | 4 | S | .07200 | 68 | 136 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 9 |
| 71-61 | 4 | S | .07200 | 69 | 137 | Y | 6 | 7 | 0 | 0 | 1 | 0 | 6 | 8 |
| 71-61 | 4 | S | .07200 | 69 | 138 | Y | 7 | 8 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 4 | S | .07200 | 70 | 139 | Y | 10 | 3 | 0 | 0 | 0 | 0 | 10 | 8 |
| 71-61 | 4 | S | .07200 | 70 | 140 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 4 | S | .72000 | 71 | 141 | Y | 4 | 9 | 1 | 1 | 0 | 0 | 5 | 9 |
| 71-61 | 4 | S | .72000 | 71 | 142 | Y | 5 | 0 | 0 | 0 | 0 | 0 | 10 | 2 |
| 71-61 | 4 | S | .72000 | 72 | 143 | Y | 5 | 10 | 1 | 1 | 0 | 0 | 5 | 10 |
| 71-61 | 4 | S | .72000 | 72 | 144 | Y | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 9 |
| 71-61 | 4 | S | .72000 | 73 | 145 | Y | 8 | 4 | 0 | 0 | 1 | 0 | 9 | 4 |
| 71-61 | 4 | S | .72000 | 73 | 146 | Y | 4 | 9 | 0 | 1 | 0 | 0 | 4 | 9 |
| 71-61 | 4 | S | .72000 | 74 | 147 | N | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| 71-61 | 4 | S | .72000 | 74 | 148 | Y | 7 | 8 | 0 | 0 | 0 | 0 | 7 | 9 |
| 71-61 | 4 | S | .72000 | 75 | 149 | Y | 3 | 7 | 0 | 2 | 1 | 0 | 4 | 7 |
| 71-61 | 4 | S | .72000 | 75 | 150 | Y | 8 | 7 | 0 | 0 | 3 | 2 | 8 | 7 |
| 71-61 | 4 | S | .72000 | 76 | 151 | Y | 7 | 8 | 1 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 4 | S | .72000 | 76 | 152 | Y | 8 | 4 | 0 | 0 | 2 | 0 | 8 | 4 |
| 71-61 | 4 | S | .72000 | 77 | 153 | Y | 9 | 6 | 1 | 0 | 1 | 0 | 9 | 6 |
| 71-61 | 4 | S | .72000 | 77 | 154 | Y | 8 | 6 | 1 | 0 | 0 | 1 | 8 | 6 |
| 71-61 | 4 | S | .72000 | 78 | 155 | Y | 10 | 6 | 0 | 0 | 0 | 1 | 10 | 6 |
| 71-61 | 4 | S | .72000 | 78 | 156 | Y | 9 | 7 | 1 | 0 | 0 | 0 | 9 | 7 |
| 71-61 | 4 | S | .72000 | 79 | 157 | Y | 5 | 5 | 1 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 4 | S | .72000 | 79 | 158 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 4 | S | .72000 | 80 | 159 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 4 | S | .72000 | 80 | 160 | Y | 7 | 3 | 1 | 0 | 0 | 0 | 9 | 4 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|---------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| TEM | 4 | S | .00020 | 11 | 21 | Y | 2 | 3 | 2 | 3 | 0 | 0 | 9 | 9 |
| TEM | 4 | S | .00020 | 11 | 22 | YY | 1 | 0 | 1 | 0 | 0 | 0 | 6 | 6 |
| TEM | 4 | S | .00020 | 12 | 23 | Y | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 12 | 24 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 13 | 25 | Y | 4 | 2 | 4 | 2 | 0 | 0 | 10 | 6 |
| TEM | 4 | S | .00020 | 13 | 26 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 14 | 27 | Y | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 14 | 28 | Y | 2 | 1 | 2 | 1 | 0 | 0 | 6 | 6 |
| TEM | 4 | S | .00020 | 15 | 29 | Y | 1 | 0 | 1 | 0 | 0 | 0 | 5 | 7 |
| TEM | 4 | S | .00020 | 15 | 30 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 16 | 31 | Y | 2 | 2 | 2 | 2 | 0 | 0 | 5 | 7 |
| TEM | 4 | S | .00020 | 16 | 32 | Y | 7 | 8 | 0 | 0 | 0 | 0 | 7 | 9 |
| TEM | 4 | S | .00020 | 17 | 33 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 7 |
| TEM | 4 | S | .00020 | 17 | 34 | Y | 1 | 0 | 1 | 0 | 0 | 0 | 8 | 8 |
| TEM | 4 | S | .00020 | 18 | 35 | Y | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 18 | 36 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 19 | 37 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 4 | S | .00020 | 19 | 38 | Y | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 5 |
| TEM | 4 | S | .00020 | 20 | 39 | Y | 1 | 0 | 1 | 0 | 0 | 0 | 8 | 4 |
| TEM | 4 | S | .00020 | 20 | 40 | Y | 0 | 1 | 0 | 0 | 0 | 1 | 8 | |
| CONTROL | 4 | M | 0.00000 | 1 | 1 | Y | 6 | 4 | 0 | 0 | 1 | 1 | 8 | 4 |
| CONTROL | 4 | M | 0.00000 | 1 | 2 | YY | 4 | 8 | 0 | 0 | 2 | 0 | 4 | 8 |
| CONTROL | 4 | M | 0.00000 | 2 | 3 | Y | 2 | 7 | 1 | 0 | 0 | 0 | 6 | 8 |
| CONTROL | 4 | M | 0.00000 | 2 | 4 | Y | 8 | 4 | 0 | 0 | 1 | 0 | 10 | 4 |
| CONTROL | 4 | M | 0.00000 | 3 | 5 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| CONTROL | 4 | M | 0.00000 | 3 | 6 | Y | 8 | 5 | 3 | 0 | 0 | 0 | 10 | 5 |
| CONTROL | 4 | M | 0.00000 | 4 | 7 | Y | 8 | 0 | 0 | 0 | 2 | 0 | 8 | 6 |
| CONTROL | 4 | M | 0.00000 | 4 | 8 | Y | 7 | 7 | 3 | 2 | 0 | 1 | 7 | 7 |
| CONTROL | 4 | M | 0.00000 | 5 | 9 | Y | 8 | 7 | 0 | 1 | 0 | 1 | 9 | 7 |
| CONTROL | 4 | M | 0.00000 | 5 | 10 | Y | 8 | 4 | 0 | 1 | 0 | 0 | 8 | 4 |
| CONTROL | 4 | M | 0.00000 | 6 | 11 | Y | 6 | 9 | 0 | 0 | 0 | 4 | 7 | 9 |
| CONTROL | 4 | M | 0.00000 | 6 | 12 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 10 | 3 |
| CONTROL | 4 | M | 0.00000 | 7 | 13 | Y | 7 | 3 | 0 | 0 | 0 | 0 | 8 | 6 |
| CONTROL | 4 | M | 0.00000 | 7 | 14 | Y | 8 | 6 | 0 | 0 | 3 | 0 | 9 | 5 |
| CONTROL | 4 | M | 0.00000 | 8 | 15 | Y | 9 | 5 | 0 | 1 | 0 | 0 | 10 | 3 |
| CONTROL | 4 | M | 0.00000 | 8 | 16 | Y | 10 | 3 | 1 | 0 | 0 | 0 | 5 | 10 |
| CONTROL | 4 | M | 0.00000 | 9 | 17 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 8 | 4 |
| CONTROL | 4 | M | 0.00000 | 9 | 18 | Y | 7 | 4 | 1 | 1 | 0 | 0 | 2 | 10 |
| CONTROL | 4 | M | 0.00000 | 10 | 19 | Y | 1 | 10 | 0 | 0 | 0 | 0 | 5 | 6 |
| CONTROL | 4 | M | 0.00000 | 10 | 20 | Y | 1 | 6 | 0 | 0 | 0 | 0 | 2 | |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|----|-----------------|---|----------------|---|------------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 4 | M | .00720 | 41 | 81 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 4 | M | .00720 | 41 | 82 | Y | 4 | 9 | 1 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 4 | M | .00720 | 42 | 83 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 4 | M | .00720 | 42 | 84 | Y | 3 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 4 | M | .00720 | 43 | 85 | Y | 2 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 4 | M | .00720 | 43 | 86 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 4 | M | .00720 | 44 | 87 | Y | 5 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 4 | M | .00720 | 44 | 88 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 4 | M | .00720 | 45 | 89 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 4 | M | .00720 | 45 | 90 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 4 | M | .00720 | 46 | 91 | Y | 11 | 4 | 0 | 0 | 1 | 0 | 11 | 4 |
| 71-61 | 4 | M | .00720 | 46 | 92 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 13 | 7 |
| 71-61 | 4 | M | .00720 | 47 | 93 | Y | 6 | 3 | 2 | 2 | 1 | 1 | 9 | 7 |
| 71-61 | 4 | M | .00720 | 47 | 94 | Y | 9 | 4 | 0 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 4 | M | .00720 | 48 | 95 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 4 | M | .00720 | 48 | 96 | Y | 4 | 11 | 0 | 0 | 0 | 0 | 4 | 11 |
| 71-61 | 4 | M | .00720 | 49 | 97 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 4 | M | .00720 | 49 | 98 | Y | 6 | 7 | 1 | 1 | 1 | 2 | 6 | 7 |
| 71-61 | 4 | M | .00720 | 50 | 99 | Y | 9 | 6 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 4 | M | .00720 | 50 | 100 | Y | 3 | 6 | 0 | 0 | 0 | 1 | 3 | 8 |
| 71-61 | 4 | M | .07200 | 51 | 101 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 4 | M | .07200 | 51 | 102 | Y | 5 | 8 | 0 | 1 | 0 | 0 | 9 | 11 |
| 71-61 | 4 | M | .07200 | 52 | 103 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 3 | 9 |
| 71-61 | 4 | M | .07200 | 52 | 104 | Y | 9 | 3 | 0 | 0 | 5 | 0 | 10 | 3 |
| 71-61 | 4 | M | .07200 | 53 | 105 | Y | 11 | 4 | 1 | 0 | 0 | 0 | 12 | 4 |
| 71-61 | 4 | M | .07200 | 53 | 106 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 4 | M | .07200 | 54 | 107 | Y | 8 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 4 | M | .07200 | 54 | 108 | Y | 8 | 6 | 1 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 4 | M | .07200 | 55 | 109 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 3 | 8 |
| 71-61 | 4 | M | .07200 | 55 | 110 | Y | 6 | 4 | 0 | 1 | 0 | 0 | 7 | 5 |
| 71-61 | 4 | M | .07200 | 56 | 111 | Y | 7 | 6 | 0 | 0 | 6 | 5 | 7 | 6 |
| 71-61 | 4 | M | .07200 | 56 | 112 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 4 | M | .07200 | 57 | 113 | Y | 5 | 6 | 1 | 0 | 0 | 1 | 5 | 6 |
| 71-61 | 4 | M | .07200 | 57 | 114 | Y | 1 | 6 | 0 | 0 | 0 | 0 | 2 | 9 |
| 71-61 | 4 | M | .07200 | 58 | 115 | Y | 3 | 5 | 1 | 0 | 0 | 0 | 3 | 7 |
| 71-61 | 4 | M | .07200 | 58 | 116 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 4 | M | .07200 | 59 | 117 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 4 | M | .07200 | 59 | 118 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 4 | M | .07200 | 60 | 119 | Y | 7 | 7 | 0 | 1 | 0 | 1 | 8 | 7 |
| 71-61 | 4 | M | .07200 | 60 | 120 | Y | 4 | 6 | 0 | 0 | 0 | 0 | 4 | 7 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|--------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|------|
| | | | | | | | | L | R | L | R | L | R |
| 71-61 | 4 | M | .72000 | 61 | 121 | Y | 9 | 0 | 0 | 0 | 0 | 0 | 9 5 |
| 71-61 | 4 | M | .72000 | 61 | 122 | YY | 4 | 7 | 0 | 0 | 0 | 0 | 4 7 |
| 71-61 | 4 | M | .72000 | 62 | 123 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 7 8 |
| 71-61 | 4 | M | .72000 | 62 | 124 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| 71-61 | 4 | M | .72000 | 63 | 125 | YY | 5 | 6 | 1 | 0 | 0 | 0 | 5 6 |
| 71-61 | 4 | M | .72000 | 63 | 126 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 5 7 |
| 71-61 | 4 | M | .72000 | 64 | 127 | YY | 0 | 1 | 0 | 0 | 0 | 0 | 6 4 |
| 71-61 | 4 | M | .72000 | 64 | 128 | YY | 9 | 5 | 0 | 0 | 3 | 2 | 9 5 |
| 71-61 | 4 | M | .72000 | 65 | 129 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| 71-61 | 4 | M | .72000 | 65 | 130 | Y | 7 | 4 | 0 | 0 | 0 | 0 | 7 5 |
| 71-61 | 4 | M | .72000 | 66 | 131 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| 71-61 | 4 | M | .72000 | 66 | 132 | YY | 6 | 9 | 0 | 0 | 0 | 1 | 7 9 |
| 71-61 | 4 | M | .72000 | 67 | 133 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 5 7 |
| 71-61 | 4 | M | .72000 | 67 | 134 | YY | 0 | 4 | 0 | 0 | 0 | 0 | 4 9 |
| 71-61 | 4 | M | .72000 | 68 | 135 | YY | 4 | 9 | 0 | 0 | 0 | 0 | 10 5 |
| 71-61 | 4 | M | .72000 | 68 | 136 | YY | 10 | 5 | 0 | 0 | 0 | 0 | 3 10 |
| 71-61 | 4 | M | .72000 | 69 | 137 | YY | 3 | 10 | 0 | 0 | 0 | 3 | 0 5 |
| 71-61 | 4 | M | .72000 | 69 | 138 | YY | 5 | 0 | 0 | 0 | 0 | 0 | 7 6 |
| 71-61 | 4 | M | .72000 | 70 | 139 | YY | 9 | 6 | 0 | 0 | 0 | 0 | 9 6 |
| 71-61 | 4 | M | .72000 | 70 | 140 | Y | 8 | 7 | 1 | 0 | 0 | 0 | 9 7 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|---------------|------|-----------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|----|----|
| | | | | | | | L | R | L | R | L | R | |
| CONTROL | 5 | S 0.00000 | 1 | 1 | Y | 7 | 4 | 0 | 0 | 0 | 1 | 7 | 7 |
| CONTROL | 5 | S 0.00000 | 1 | 2 | YY | 10 | 3 | 0 | 0 | 2 | 1 | 10 | 4 |
| CONTROL | 5 | S 0.00000 | 2 | 3 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| CONTROL | 5 | S 0.00000 | 2 | 4 | YY | 5 | 10 | 0 | 0 | 0 | 0 | 6 | 10 |
| CONTROL | 5 | S 0.00000 | 3 | 5 | YY | 9 | 3 | 0 | 0 | 0 | 0 | 10 | 6 |
| CONTROL | 5 | S 0.00000 | 3 | 6 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| CONTROL | 5 | S 0.00000 | 4 | 7 | YY | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| CONTROL | 5 | S 0.00000 | 4 | 8 | YY | 4 | 8 | 0 | 0 | 0 | 1 | 5 | 8 |
| CONTROL | 5 | S 0.00000 | 5 | 9 | YY | 8 | 4 | 0 | 0 | 1 | 0 | 10 | 4 |
| CONTROL | 5 | S 0.00000 | 5 | 10 | YY | 5 | 5 | 0 | 0 | 0 | 0 | 5 | 6 |
| CONTROL | 5 | S 0.00000 | 6 | 11 | YY | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 8 |
| CONTROL | 5 | S 0.00000 | 6 | 12 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 6 | 9 |
| CONTROL | 5 | S 0.00000 | 7 | 13 | YY | 5 | 5 | 1 | 0 | 0 | 0 | 6 | 5 |
| CONTROL | 5 | S 0.00000 | 7 | 14 | YY | 6 | 6 | 3 | 0 | 0 | 0 | 7 | 6 |
| CONTROL | 5 | S 0.00000 | 8 | 15 | YY | 3 | 10 | 0 | 0 | 0 | 0 | 3 | 10 |
| CONTROL | 5 | S 0.00000 | 8 | 16 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL | 5 | S 0.00000 | 9 | 17 | YY | 7 | 6 | 1 | 0 | 1 | 1 | 7 | 6 |
| CONTROL | 5 | S 0.00000 | 9 | 18 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 5 | 10 |
| CONTROL | 5 | S 0.00000 | 10 | 19 | YY | 8 | 5 | 0 | 0 | 2 | 1 | 8 | 6 |
| CONTROL | 5 | S 0.00000 | 10 | 20 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | S .00720 | 51 | 101 | Y | 4 | 7 | 0 | 0 | 0 | 1 | 4 | 7 |
| 71-61 | 5 | S .00720 | 51 | 102 | YY | 0 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 5 | S .00720 | 52 | 103 | YY | 9 | 3 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 5 | S .00720 | 52 | 104 | YY | 4 | 7 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 5 | S .00720 | 53 | 105 | YY | 8 | 6 | 0 | 0 | 0 | 0 | 10 | 6 |
| 71-61 | 5 | S .00720 | 53 | 106 | YY | 6 | 8 | 1 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 5 | S .00720 | 54 | 107 | YY | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 5 | S .00720 | 54 | 108 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 5 | S .00720 | 55 | 109 | YY | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 9 |
| 71-61 | 5 | S .00720 | 55 | 110 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 5 | S .00720 | 56 | 111 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | S .00720 | 56 | 112 | YY | 6 | 7 | 0 | 1 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | S .00720 | 57 | 113 | YY | 7 | 5 | 0 | 1 | 0 | 0 | 8 | 5 |
| 71-61 | 5 | S .00720 | 57 | 114 | YY | 7 | 6 | 0 | 0 | 0 | 1 | 7 | 6 |
| 71-61 | 5 | S .00720 | 58 | 115 | YY | 8 | 6 | 0 | 0 | 0 | 0 | 9 | 7 |
| 71-61 | 5 | S .00720 | 58 | 116 | YY | 6 | 6 | 0 | 0 | 2 | 1 | 7 | 7 |
| 71-61 | 5 | S .00720 | 59 | 117 | YY | 5 | 3 | 0 | 0 | 1 | 0 | 8 | 7 |
| 71-61 | 5 | S .00720 | 59 | 118 | YY | 7 | 7 | 1 | 1 | 0 | 0 | 7 | 8 |
| 71-61 | 5 | S .00720 | 60 | 119 | YY | 4 | 8 | 0 | 1 | 0 | 0 | 7 | 6 |
| 71-61 | 5 | S .00720 | 60 | 120 | Y | 9 | 5 | 0 | 0 | 0 | 0 | 9 | 6 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 5 | S | .07200 | 61 | 121 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 5 | S | .07200 | 61 | 122 | Y | 6 | 6 | 1 | 1 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | S | .07200 | 62 | 123 | Y | 1 | 11 | 0 | 0 | 0 | 0 | 1 | 13 |
| 71-61 | 5 | S | .07200 | 62 | 124 | Y | 3 | 8 | 0 | 1 | 0 | 0 | 4 | 9 |
| 71-61 | 5 | S | .07200 | 63 | 125 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 5 | S | .07200 | 63 | 126 | Y | 8 | 8 | 0 | 1 | 5 | 2 | 8 | 8 |
| 71-61 | 5 | S | .07200 | 64 | 127 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | S | .07200 | 64 | 128 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 5 | S | .07200 | 65 | 129 | Y | 8 | 4 | 0 | 1 | 0 | 0 | 8 | 5 |
| 71-61 | 5 | S | .07200 | 65 | 130 | Y | 7 | 8 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 5 | S | .07200 | 66 | 131 | Y | 7 | 8 | 0 | 0 | 1 | 0 | 7 | 8 |
| 71-61 | 5 | S | .07200 | 66 | 132 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 5 | S | .07200 | 67 | 133 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 5 | S | .07200 | 67 | 134 | Y | 9 | 7 | 9 | 7 | 0 | 0 | 10 | 7 |
| 71-61 | 5 | S | .07200 | 68 | 135 | Y | 7 | 6 | 0 | 1 | 0 | 0 | 8 | 8 |
| 71-61 | 5 | S | .07200 | 68 | 136 | Y | 3 | 9 | 0 | 0 | 0 | 0 | 3 | 11 |
| 71-61 | 5 | S | .07200 | 69 | 137 | Y | 10 | 3 | 0 | 0 | 0 | 0 | 10 | 3 |
| 71-61 | 5 | S | .07200 | 69 | 138 | Y | 6 | 9 | 0 | 0 | 0 | 1 | 6 | 9 |
| 71-61 | 5 | S | .07200 | 70 | 139 | Y | 7 | 6 | 0 | 1 | 0 | 2 | 7 | 6 |
| 71-61 | 5 | S | .07200 | 70 | 140 | Y | 7 | 6 | 1 | 1 | 2 | 2 | 7 | 6 |
| 71-61 | 5 | S | .72000 | 71 | 141 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 4 | 7 |
| 71-61 | 5 | S | .72000 | 71 | 142 | Y | 5 | 7 | 1 | 2 | 1 | 1 | 5 | 7 |
| 71-61 | 5 | S | .72000 | 72 | 143 | Y | 0 | 6 | 0 | 0 | 0 | 1 | 9 | 6 |
| 71-61 | 5 | S | .72000 | 72 | 144 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 5 | S | .72000 | 73 | 145 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | S | .72000 | 73 | 146 | Y | 8 | 4 | 0 | 1 | 0 | 0 | 8 | 4 |
| 71-61 | 5 | S | .72000 | 74 | 147 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 5 | S | .72000 | 74 | 148 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 5 | S | .72000 | 75 | 149 | Y | 8 | 4 | 0 | 0 | 1 | 1 | 8 | 6 |
| 71-61 | 5 | S | .72000 | 75 | 150 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 5 | S | .72000 | 76 | 151 | Y | 7 | 6 | 0 | 1 | 0 | 0 | 7 | 7 |
| 71-61 | 5 | S | .72000 | 76 | 152 | Y | 5 | 9 | 0 | 1 | 0 | 0 | 10 | 9 |
| 71-61 | 5 | S | .72000 | 77 | 153 | Y | 7 | 7 | 1 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 5 | S | .72000 | 77 | 154 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 5 | S | .72000 | 78 | 155 | Y | 7 | 6 | 1 | 2 | 0 | 0 | 7 | 8 |
| 71-61 | 5 | S | .72000 | 78 | 156 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 5 | S | .72000 | 79 | 157 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 5 | S | .72000 | 79 | 158 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 5 | S | .72000 | 80 | 159 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 5 | S | .72000 | 80 | 160 | Y | 6 | 4 | 0 | 1 | 0 | 0 | 8 | 4 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|---------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| TEM | 5 | S | .00020 | 11 | 21 | Y | 9 | 4 | 6 | 2 | 0 | 0 | 9 | 5 |
| TEM | 5 | S | .00020 | 11 | 22 | Y | 4 | 8 | 2 | 6 | 0 | 0 | 5 | 9 |
| TEM | 5 | S | .00020 | 12 | 23 | Y | 4 | 4 | 1 | 3 | 0 | 0 | 7 | 7 |
| TEM | 5 | S | .00020 | 12 | 24 | Y | 1 | 0 | 1 | 0 | 0 | 0 | 6 | 5 |
| TEM | 5 | S | .00020 | 13 | 25 | Y | 6 | 4 | 5 | 3 | 1 | 0 | 7 | 6 |
| TEM | 5 | S | .00020 | 13 | 26 | Y | 7 | 6 | 7 | 6 | 0 | 0 | 4 | 10 |
| TEM | 5 | S | .00020 | 14 | 27 | Y | 4 | 9 | 2 | 4 | 2 | 5 | 10 | 10 |
| TEM | 5 | S | .00020 | 14 | 28 | Y | 0 | 6 | 0 | 6 | 0 | 0 | 7 | 6 |
| TEM | 5 | S | .00020 | 15 | 29 | Y | 7 | 6 | 3 | 3 | 0 | 0 | 8 | 4 |
| TEM | 5 | S | .00020 | 15 | 30 | Y | 6 | 2 | 2 | 1 | 1 | 1 | 8 | 9 |
| TEM | 5 | S | .00020 | 16 | 31 | Y | 7 | 5 | 5 | 3 | 0 | 0 | 8 | 6 |
| TEM | 5 | S | .00020 | 16 | 32 | Y | 8 | 6 | 8 | 5 | 0 | 0 | 6 | 10 |
| TEM | 5 | S | .00020 | 17 | 33 | Y | 4 | 10 | 4 | 9 | 0 | 0 | 0 | 0 |
| TEM | 5 | S | .00020 | 17 | 34 | N | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 7 |
| TEM | 5 | S | .00020 | 18 | 35 | Y | 5 | 5 | 3 | 4 | 0 | 0 | 7 | 7 |
| TEM | 5 | S | .00020 | 18 | 36 | Y | 3 | 1 | 3 | 1 | 0 | 0 | 8 | 6 |
| TEM | 5 | S | .00020 | 19 | 37 | Y | 4 | 7 | 4 | 7 | 0 | 0 | 5 | 11 |
| TEM | 5 | S | .00020 | 19 | 38 | Y | 3 | 8 | 2 | 8 | 0 | 0 | 5 | 10 |
| TEM | 5 | S | .00020 | 20 | 39 | Y | 5 | 7 | 5 | 7 | 0 | 0 | 5 | 7 |
| TEM | 5 | S | .00020 | 20 | 40 | Y | | | | | | | | |
| CONTROL | 5 | M | 0.00000 | 1 | 1 | Y | 6 | 8 | 0 | 0 | 1 | 0 | 8 | 8 |
| CONTROL | 5 | M | 0.00000 | 1 | 2 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 3 | 8 |
| CONTROL | 5 | M | 0.00000 | 2 | 3 | Y | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 4 |
| CONTROL | 5 | M | 0.00000 | 2 | 4 | Y | 6 | 7 | 0 | 0 | 1 | 1 | 8 | 7 |
| CONTROL | 5 | M | 0.00000 | 3 | 5 | Y | 6 | 9 | 0 | 0 | 1 | 1 | 6 | 11 |
| CONTROL | 5 | M | 0.00000 | 3 | 6 | Y | 8 | 8 | 0 | 0 | 0 | 0 | 8 | 8 |
| CONTROL | 5 | M | 0.00000 | 4 | 7 | Y | 5 | 10 | 0 | 0 | 0 | 0 | 5 | 10 |
| CONTROL | 5 | M | 0.00000 | 4 | 8 | Y | 5 | 6 | 0 | 0 | 2 | 0 | 0 | 0 |
| CONTROL | 5 | M | 0.00000 | 5 | 9 | Y | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 8 |
| CONTROL | 5 | M | 0.00000 | 5 | 10 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 8 | 3 |
| CONTROL | 5 | M | 0.00000 | 6 | 11 | Y | 8 | 3 | 0 | 0 | 0 | 0 | 7 | 9 |
| CONTROL | 5 | M | 0.00000 | 6 | 12 | Y | 0 | 7 | 0 | 0 | 0 | 0 | 6 | 8 |
| CONTROL | 5 | M | 0.00000 | 7 | 13 | Y | 6 | 7 | 0 | 1 | 0 | 0 | 4 | 9 |
| CONTROL | 5 | M | 0.00000 | 7 | 14 | Y | 0 | 9 | 0 | 0 | 0 | 0 | 8 | 8 |
| CONTROL | 5 | M | 0.00000 | 8 | 15 | Y | 7 | 8 | 0 | 3 | 0 | 0 | 10 | 4 |
| CONTROL | 5 | M | 0.00000 | 8 | 16 | Y | 10 | 3 | 2 | 0 | 0 | 0 | 4 | 6 |
| CONTROL | 5 | M | 0.00000 | 9 | 17 | Y | 4 | 6 | 1 | 0 | 0 | 0 | 6 | 7 |
| CONTROL | 5 | M | 0.00000 | 9 | 18 | Y | 6 | 7 | 1 | 0 | 0 | 0 | 4 | 10 |
| CONTROL | 5 | M | 0.00000 | 10 | 19 | Y | 3 | 10 | 0 | 1 | 0 | 0 | 9 | 3 |
| CONTROL | 5 | M | 0.00000 | 10 | 20 | Y | 8 | 3 | 0 | 0 | 1 | 0 | | |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|---|-----------------|---|----------------|---|------------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 5 | M | .00720 | 41 | 81 | Y | 8 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 5 | M | .00720 | 41 | 82 | YY | 3 | 6 | 0 | 0 | 0 | 0 | 3 | 7 |
| 71-61 | 5 | M | .00720 | 42 | 83 | YY | 5 | 5 | 1 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 5 | M | .00720 | 42 | 84 | YY | 7 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 5 | M | .00720 | 43 | 85 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 5 | M | .00720 | 43 | 86 | YY | 5 | 6 | 0 | 1 | 0 | 0 | 5 | 7 |
| 71-61 | 5 | M | .00720 | 44 | 87 | YY | 5 | 5 | 0 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 5 | M | .00720 | 44 | 88 | YY | 2 | 5 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 5 | M | .00720 | 45 | 89 | YY | 9 | 6 | 0 | 0 | 0 | 0 | 10 | 3 |
| 71-61 | 5 | M | .00720 | 45 | 90 | YY | 8 | 2 | 2 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 5 | M | .00720 | 46 | 91 | YY | 9 | 4 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 5 | M | .00720 | 46 | 92 | YY | 4 | 8 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 5 | M | .00720 | 47 | 93 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 5 | M | .00720 | 47 | 94 | YY | 8 | 3 | 1 | 0 | 0 | 0 | 8 | 7 |
| 71-61 | 5 | M | .00720 | 48 | 95 | YY | 8 | 7 | 0 | 0 | 0 | 0 | 4 | 6 |
| 71-61 | 5 | M | .00720 | 48 | 96 | YY | 4 | 6 | 0 | 1 | 0 | 0 | 7 | 7 |
| 71-61 | 5 | M | .00720 | 49 | 97 | YY | 7 | 5 | 0 | 0 | 2 | 1 | 7 | 5 |
| 71-61 | 5 | M | .00720 | 49 | 98 | YY | 6 | 4 | 0 | 0 | 0 | 0 | 5 | 5 |
| 71-61 | 5 | M | .00720 | 50 | 99 | YY | 5 | 5 | 0 | 0 | 0 | 0 | 4 | 10 |
| 71-61 | 5 | M | .00720 | 50 | 100 | Y | 4 | 9 | 0 | 1 | 0 | 0 | | |
| 71-61 | 5 | M | .07200 | 51 | 101 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 5 | M | .07200 | 51 | 102 | YY | 9 | 6 | 1 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 5 | M | .07200 | 52 | 103 | YY | 9 | 4 | 0 | 0 | 0 | 0 | 10 | 4 |
| 71-61 | 5 | M | .07200 | 52 | 104 | YY | 4 | 8 | 0 | 0 | 1 | 0 | 4 | 10 |
| 71-61 | 5 | M | .07200 | 53 | 105 | YY | 9 | 5 | 0 | 0 | 2 | 2 | 9 | 5 |
| 71-61 | 5 | M | .07200 | 53 | 106 | YY | 9 | 8 | 1 | 0 | 0 | 0 | 9 | 8 |
| 71-61 | 5 | M | .07200 | 54 | 107 | YY | 7 | 4 | 1 | 1 | 0 | 0 | 7 | 4 |
| 71-61 | 5 | M | .07200 | 54 | 108 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 5 | M | .07200 | 55 | 109 | YY | 7 | 4 | 1 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 5 | M | .07200 | 55 | 110 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 5 | M | .07200 | 56 | 111 | YY | 7 | 8 | 1 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 5 | M | .07200 | 56 | 112 | YY | 7 | 6 | 0 | 1 | 0 | 0 | 7 | 6 |
| 71-61 | 5 | M | .07200 | 57 | 113 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 5 | M | .07200 | 57 | 114 | YY | 7 | 9 | 1 | 2 | 0 | 0 | 7 | 9 |
| 71-61 | 5 | M | .07200 | 58 | 115 | YY | 6 | 8 | 1 | 2 | 0 | 0 | 6 | 8 |
| 71-61 | 5 | M | .07200 | 58 | 116 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | M | .07200 | 59 | 117 | YY | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 5 | M | .07200 | 59 | 118 | YY | 6 | 5 | 0 | 0 | 0 | 1 | 8 | 6 |
| 71-61 | 5 | M | .07200 | 60 | 119 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 5 | M | .07200 | 60 | 120 | Y | 7 | 6 | 0 | 0 | 0 | 0 | | |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|---|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 5 | M | .72000 | 61 | 121 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 5 | M | .72000 | 61 | 122 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 5 | M | .72000 | 62 | 123 | Y | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 4 |
| 71-61 | 5 | M | .72000 | 62 | 124 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | M | .72000 | 63 | 125 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 0 |
| 71-61 | 5 | M | .72000 | 63 | 126 | N | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 5 | M | .72000 | 64 | 127 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 5 | M | .72000 | 64 | 128 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 5 | M | .72000 | 65 | 129 | Y | 7 | 3 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 5 | M | .72000 | 65 | 130 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 4 | 10 |
| 71-61 | 5 | M | .72000 | 66 | 131 | Y | 4 | 8 | 0 | 1 | 0 | 0 | 9 | 4 |
| 71-61 | 5 | M | .72000 | 66 | 132 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 5 | M | .72000 | 67 | 133 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 5 | M | .72000 | 67 | 134 | Y | 9 | 5 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 5 | M | .72000 | 68 | 135 | Y | 4 | 3 | 2 | 1 | 0 | 3 | 8 | 5 |
| 71-61 | 5 | M | .72000 | 68 | 136 | Y | 8 | 5 | 1 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 5 | M | .72000 | 69 | 137 | Y | 6 | 7 | 2 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 5 | M | .72000 | 69 | 138 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 4 | 6 |
| 71-61 | 5 | M | .72000 | 70 | 139 | Y | 4 | 6 | 1 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 5 | M | .72000 | 70 | 140 | Y | 3 | 8 | 0 | 0 | 0 | 0 | 5 | 9 |

| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PRE [✓] | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|---------------|------|-----------|----------|------------|------------------|----------|--------------|---|-------------|---|---------------|----|----|
| | | | | | | | L | R | L | R | L | R | |
| CONTROL | 6 | S 0.00000 | 1 | 1 | Y | 6 | 8 | 0 | 0 | 2 | 1 | 6 | 8 |
| CONTROL | 6 | S 0.00000 | 1 | 2 | Y | 8 | 5 | 0 | 0 | 1 | 1 | 5 | 5 |
| CONTROL | 6 | S 0.00000 | 2 | 3 | Y | 3 | 3 | 1 | 0 | 0 | 0 | 5 | 7 |
| CONTROL | 6 | S 0.00000 | 2 | 4 | Y | 5 | 7 | 2 | 4 | 0 | 0 | 6 | 6 |
| CONTROL | 6 | S 0.00000 | 3 | 5 | Y | 5 | 6 | 0 | 1 | 0 | 0 | 5 | 9 |
| CONTROL | 6 | S 0.00000 | 3 | 6 | Y | 4 | 9 | 0 | 1 | 0 | 0 | 8 | 8 |
| CONTROL | 6 | S 0.00000 | 4 | 7 | Y | 8 | 7 | 1 | 1 | 0 | 0 | 5 | 8 |
| CONTROL | 6 | S 0.00000 | 4 | 8 | Y | 2 | 7 | 0 | 0 | 0 | 0 | 5 | 8 |
| CONTROL | 6 | S 0.00000 | 5 | 9 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| CONTROL | 6 | S 0.00000 | 5 | 10 | Y | 1 | 5 | 1 | 0 | 0 | 0 | 5 | 6 |
| CONTROL | 6 | S 0.00000 | 6 | 11 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 7 |
| CONTROL | 6 | S 0.00000 | 6 | 12 | Y | 4 | 5 | 0 | 0 | 0 | 0 | 8 | 4 |
| CONTROL | 6 | S 0.00000 | 7 | 13 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 6 | 9 |
| CONTROL | 6 | S 0.00000 | 7 | 14 | Y | 6 | 8 | 1 | 0 | 0 | 0 | 7 | 7 |
| CONTROL | 6 | S 0.00000 | 8 | 15 | Y | 7 | 7 | 0 | 0 | 1 | 3 | 7 | 7 |
| CONTROL | 6 | S 0.00000 | 8 | 16 | Y | 4 | 6 | 0 | 0 | 0 | 0 | 5 | 7 |
| CONTROL | 6 | S 0.00000 | 9 | 17 | Y | 5 | 5 | 0 | 0 | 0 | 0 | 6 | 6 |
| CONTROL | 6 | S 0.00000 | 9 | 18 | Y | 5 | 6 | 0 | 0 | 1 | 0 | 8 | 10 |
| CONTROL | 6 | S 0.00000 | 10 | 19 | Y | 8 | 6 | 2 | 1 | 0 | 0 | 7 | 5 |
| CONTROL | 6 | S 0.00000 | 10 | 20 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 6 | S .00720 | 51 | 101 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 6 | S .00720 | 51 | 102 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 6 | S .00720 | 52 | 103 | Y | 2 | 0 | 0 | 0 | 1 | 1 | 4 | 10 |
| 71-61 | 6 | S .00720 | 52 | 104 | Y | 6 | 4 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 6 | S .00720 | 53 | 105 | Y | 4 | 7 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 6 | S .00720 | 53 | 106 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 9 |
| 71-61 | 6 | S .00720 | 54 | 107 | Y | 7 | 9 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 6 | S .00720 | 54 | 108 | Y | 5 | 7 | 0 | 0 | 0 | 1 | 6 | 7 |
| 71-61 | 6 | S .00720 | 55 | 109 | Y | 5 | 5 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 6 | S .00720 | 55 | 110 | Y | 7 | 7 | 0 | 0 | 0 | 1 | 7 | 7 |
| 71-61 | 6 | S .00720 | 56 | 111 | Y | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 6 | S .00720 | 56 | 112 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 6 | S .00720 | 57 | 113 | Y | 6 | 6 | 0 | 0 | 1 | 0 | 4 | 3 |
| 71-61 | 6 | S .00720 | 57 | 114 | Y | 4 | 3 | 0 | 0 | 1 | 0 | 8 | 4 |
| 71-61 | 6 | S .00720 | 58 | 115 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 6 | S .00720 | 58 | 116 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 10 | 5 |
| 71-61 | 6 | S .00720 | 59 | 117 | Y | 10 | 5 | 1 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 6 | S .00720 | 59 | 118 | Y | 8 | 5 | 0 | 0 | 0 | 1 | 8 | 4 |
| 71-61 | 6 | S .00720 | 60 | 119 | Y | 8 | 4 | 0 | 0 | 0 | 1 | 8 | 4 |
| 71-61 | 6 | S .00720 | 60 | 120 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 6 | S | .07200 | 61 | 121 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 6 | S | .07200 | 61 | 122 | YY | 6 | 8 | 0 | 1 | 0 | 0 | 7 | 8 |
| 71-61 | 6 | S | .07200 | 62 | 123 | YY | 6 | 7 | 1 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 6 | S | .07200 | 62 | 124 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 6 | S | .07200 | 63 | 125 | YY | 4 | 9 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 6 | S | .07200 | 63 | 126 | YY | 2 | 8 | 1 | 3 | 0 | 0 | 7 | 5 |
| 71-61 | 6 | S | .07200 | 64 | 127 | YY | 6 | 4 | 0 | 0 | 0 | 0 | 2 | 7 |
| 71-61 | 6 | S | .07200 | 64 | 128 | YY | 2 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 6 | S | .07200 | 65 | 129 | YY | 0 | 6 | 0 | 0 | 0 | 1 | 5 | 7 |
| 71-61 | 6 | S | .07200 | 65 | 130 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 6 | S | .07200 | 66 | 131 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 10 | 5 |
| 71-61 | 6 | S | .07200 | 66 | 132 | YY | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 6 | S | .07200 | 67 | 133 | N | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 5 |
| 71-61 | 6 | S | .07200 | 67 | 134 | YY | 8 | 5 | 0 | 0 | 0 | 0 | 10 | 6 |
| 71-61 | 6 | S | .07200 | 68 | 135 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 6 | S | .07200 | 68 | 136 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 6 | S | .07200 | 69 | 137 | YY | 6 | 7 | 1 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 6 | S | .07200 | 69 | 138 | YY | 6 | 5 | 1 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 6 | S | .07200 | 70 | 139 | YY | 7 | 5 | 1 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 6 | S | .07200 | 70 | 140 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 6 | S | .72000 | 71 | 141 | Y | 8 | 6 | 0 | 0 | 0 | 1 | 0 | 8 |
| 71-61 | 6 | S | .72000 | 71 | 142 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 6 | S | .72000 | 72 | 143 | YY | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 8 |
| 71-61 | 6 | S | .72000 | 72 | 144 | YY | 10 | 3 | 0 | 0 | 0 | 0 | 11 | 3 |
| 71-61 | 6 | S | .72000 | 73 | 145 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 6 | S | .72000 | 73 | 146 | YY | 5 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 6 | S | .72000 | 74 | 147 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 9 | 4 |
| 71-61 | 6 | S | .72000 | 74 | 148 | YY | 10 | 2 | 0 | 0 | 0 | 0 | 10 | 2 |
| 71-61 | 6 | S | .72000 | 75 | 149 | YY | 8 | 2 | 0 | 0 | 0 | 0 | 8 | 2 |
| 71-61 | 6 | S | .72000 | 75 | 150 | YY | 2 | 7 | 0 | 0 | 0 | 1 | 2 | 8 |
| 71-61 | 6 | S | .72000 | 76 | 151 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 6 | S | .72000 | 76 | 152 | YY | 6 | 4 | 0 | 0 | 0 | 1 | 6 | 4 |
| 71-61 | 6 | S | .72000 | 77 | 153 | YY | 2 | 9 | 0 | 0 | 0 | 0 | 3 | 11 |
| 71-61 | 6 | S | .72000 | 77 | 154 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 6 | S | .72000 | 78 | 155 | YY | 1 | 1 | 0 | 1 | 0 | 0 | 4 | 5 |
| 71-61 | 6 | S | .72000 | 78 | 156 | YY | 0 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 6 | S | .72000 | 78 | 156 | YY | 7 | 6 | 0 | 1 | 0 | 0 | 8 | 9 |
| 71-61 | 6 | S | .72000 | 79 | 157 | YY | 7 | 4 | 2 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 6 | S | .72000 | 79 | 158 | YY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 6 | S | .72000 | 80 | 159 | N | 0 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 6 | S | .72000 | 80 | 160 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|---------------|------|-----|---------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| TEM | 6 | S | .00020 | 11 | 21 | Y | 5 | 6 | 2 | 0 | 0 | 0 | 5 | 6 |
| TEM | 6 | S | .00020 | 11 | 22 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 7 |
| TEM | 6 | S | .00020 | 12 | 23 | Y | 7 | 6 | 4 | 2 | 0 | 0 | 7 | 6 |
| TEM | 6 | S | .00020 | 12 | 24 | Y | 9 | 5 | 0 | 0 | 0 | 0 | 10 | 5 |
| TEM | 6 | S | .00020 | 13 | 25 | Y | 9 | 5 | 3 | 1 | 1 | 0 | 9 | 5 |
| TEM | 6 | S | .00020 | 13 | 26 | Y | 7 | 6 | 1 | 1 | 1 | 1 | 7 | 6 |
| TEM | 6 | S | .00020 | 14 | 27 | Y | 1 | 3 | 1 | 0 | 0 | 0 | 5 | 7 |
| TEM | 6 | S | .00020 | 14 | 28 | Y | 10 | 5 | 0 | 0 | 0 | 0 | 10 | 5 |
| TEM | 6 | S | .00020 | 15 | 29 | Y | 2 | 11 | 0 | 0 | 0 | 0 | 5 | 11 |
| TEM | 6 | S | .00020 | 15 | 30 | Y | 6 | 6 | 0 | 0 | 3 | 3 | 7 | 6 |
| TEM | 6 | S | .00020 | 16 | 31 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| TEM | 6 | S | .00020 | 16 | 32 | Y | 6 | 6 | 1 | 2 | 0 | 0 | 6 | 6 |
| TEM | 6 | S | .00020 | 17 | 33 | Y | 5 | 9 | 0 | 0 | 1 | 1 | 5 | 9 |
| TEM | 6 | S | .00020 | 17 | 34 | Y | 6 | 7 | 0 | 1 | 0 | 0 | 6 | 7 |
| TEM | 6 | S | .00020 | 18 | 35 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| TEM | 6 | S | .00020 | 18 | 36 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 1 | 5 |
| TEM | 6 | S | .00020 | 19 | 37 | Y | 6 | 5 | 1 | 1 | 0 | 0 | 7 | 6 |
| TEM | 6 | S | .00020 | 19 | 38 | Y | 7 | 7 | 0 | 2 | 7 | 5 | 8 | 7 |
| TEM | 6 | S | .00020 | 20 | 39 | Y | 5 | 8 | 1 | 0 | 0 | 0 | 5 | 8 |
| TEM | 6 | S | .00020 | 20 | 40 | Y | 5 | 6 | 0 | 1 | 0 | 0 | 5 | 8 |
| CONTROL | 6 | M | 0.00000 | 1 | 1 | Y | 8 | 5 | 0 | 0 | 0 | 0 | 8 | 6 |
| CONTROL | 6 | M | 0.00000 | 1 | 2 | Y | 7 | 3 | 0 | 0 | 2 | 0 | 8 | 3 |
| CONTROL | 6 | M | 0.00000 | 2 | 3 | Y | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 3 |
| CONTROL | 6 | M | 0.00000 | 2 | 4 | Y | 8 | 6 | 0 | 0 | 0 | 1 | 8 | 6 |
| CONTROL | 6 | M | 0.00000 | 3 | 5 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |
| CONTROL | 6 | M | 0.00000 | 3 | 6 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| CONTROL | 6 | M | 0.00000 | 4 | 7 | Y | 6 | 0 | 0 | 0 | 1 | 0 | 6 | 3 |
| CONTROL | 6 | M | 0.00000 | 4 | 8 | Y | 7 | 8 | 1 | 0 | 0 | 0 | 7 | 8 |
| CONTROL | 6 | M | 0.00000 | 5 | 9 | Y | 5 | 6 | 0 | 1 | 0 | 0 | 6 | 9 |
| CONTROL | 6 | M | 0.00000 | 5 | 10 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| CONTROL | 6 | M | 0.00000 | 6 | 11 | Y | 9 | 3 | 0 | 0 | 3 | 1 | 9 | 4 |
| CONTROL | 6 | M | 0.00000 | 6 | 12 | Y | 3 | 8 | 0 | 1 | 0 | 1 | 4 | 9 |
| CONTROL | 6 | M | 0.00000 | 7 | 13 | Y | 2 | 8 | 0 | 0 | 0 | 1 | 3 | 6 |
| CONTROL | 6 | M | 0.00000 | 7 | 14 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 | 6 |
| CONTROL | 6 | M | 0.00000 | 8 | 15 | Y | 4 | 6 | 1 | 0 | 0 | 0 | 4 | 6 |
| CONTROL | 6 | M | 0.00000 | 8 | 16 | Y | 7 | 7 | 0 | 1 | 0 | 0 | 8 | 7 |
| CONTROL | 6 | M | 0.00000 | 9 | 17 | Y | 9 | 3 | 1 | 0 | 0 | 0 | 10 | 3 |
| CONTROL | 6 | M | 0.00000 | 9 | 18 | Y | 8 | 2 | 0 | 0 | 0 | 0 | 10 | 2 |
| CONTROL | 6 | M | 0.00000 | 10 | 19 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 6 |
| CONTROL | 6 | M | 0.00000 | 10 | 20 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|-----------------|---|----------------|---|------------------|---|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 6 | M | .00720 | 41 | 81 | Y | 5 | 5 | 1 | 2 | 0 | 0 | 6 | 5 |
| 71-61 | 6 | M | .00720 | 41 | 82 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 6 | M | .00720 | 42 | 83 | Y | 6 | 6 | 1 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 6 | M | .00720 | 42 | 84 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 6 | M | .00720 | 43 | 85 | Y | 6 | 5 | 0 | 1 | 0 | 0 | 8 | 5 |
| 71-61 | 6 | M | .00720 | 43 | 86 | Y | 7 | 8 | 1 | 0 | 0 | 1 | 8 | 8 |
| 71-61 | 6 | M | .00720 | 44 | 87 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 6 | M | .00720 | 44 | 88 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 6 | M | .00720 | 45 | 89 | Y | 8 | 5 | 0 | 0 | 1 | 0 | 8 | 5 |
| 71-61 | 6 | M | .00720 | 45 | 90 | Y | 6 | 7 | 0 | 0 | 1 | 1 | 6 | 7 |
| 71-61 | 6 | M | .00720 | 46 | 91 | Y | 6 | 3 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 6 | M | .00720 | 46 | 92 | Y | 4 | 8 | 0 | 0 | 0 | 3 | 4 | 8 |
| 71-61 | 6 | M | .00720 | 47 | 93 | Y | 9 | 4 | 0 | 0 | 2 | 0 | 9 | 4 |
| 71-61 | 6 | M | .00720 | 47 | 94 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 6 | M | .00720 | 48 | 95 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 6 | M | .00720 | 48 | 96 | Y | 0 | 9 | 0 | 1 | 0 | 1 | 3 | 11 |
| 71-61 | 6 | M | .00720 | 49 | 97 | Y | 4 | 8 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 6 | M | .00720 | 49 | 98 | Y | 7 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 6 | M | .00720 | 50 | 99 | Y | 4 | 9 | 0 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 6 | M | .00720 | 50 | 100 | Y | 8 | 5 | 0 | 0 | 1 | 1 | 9 | 6 |
| 71-61 | 6 | M | .07200 | 51 | 101 | Y | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 6 | M | .07200 | 51 | 102 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 6 | M | .07200 | 52 | 103 | Y | 4 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 6 | M | .07200 | 52 | 104 | Y | 7 | 7 | 0 | 0 | 1 | 1 | 7 | 7 |
| 71-61 | 6 | M | .07200 | 53 | 105 | Y | 6 | 7 | 0 | 0 | 1 | 0 | 7 | 7 |
| 71-61 | 6 | M | .07200 | 53 | 106 | Y | 7 | 5 | 0 | 0 | 0 | 1 | 7 | 5 |
| 71-61 | 6 | M | .07200 | 54 | 107 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 6 | M | .07200 | 54 | 108 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 6 | M | .07200 | 55 | 109 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 6 | M | .07200 | 55 | 110 | Y | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 6 | M | .07200 | 56 | 111 | Y | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 6 | M | .07200 | 56 | 112 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 6 | M | .07200 | 57 | 113 | Y | 4 | 6 | 0 | 1 | 0 | 0 | 6 | 7 |
| 71-61 | 6 | M | .07200 | 57 | 114 | Y | 4 | 7 | 1 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 6 | M | .07200 | 58 | 115 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 6 | M | .07200 | 58 | 116 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 6 | M | .07200 | 59 | 117 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 6 | M | .07200 | 59 | 118 | Y | 5 | 10 | 0 | 0 | 0 | 1 | 5 | 10 |
| 71-61 | 6 | M | .07200 | 60 | 119 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 6 | M | .07200 | 60 | 120 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 8 | 7 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|--------|-------------|---------------|-------|----------|---|-----------------|---|----------------|---|------------------|---|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 6 | M | .72000 | 61 | 121 | Y | 8 | 5 | 1 | 1 | 0 | 0 | 9 | 8 |
| 71-61 | 6 | M | .72000 | 61 | 122 | YY | 6 | 5 | 0 | 0 | 1 | 0 | 6 | 5 |
| 71-61 | 6 | M | .72000 | 62 | 123 | Y | 5 | 6 | 0 | 0 | 3 | 3 | 5 | 8 |
| 71-61 | 6 | M | .72000 | 62 | 124 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 6 | M | .72000 | 63 | 125 | YY | 4 | 8 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 6 | M | .72000 | 63 | 126 | YY | 7 | 4 | 0 | 0 | 1 | 0 | 8 | 5 |
| 71-61 | 6 | M | .72000 | 64 | 127 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 6 | M | .72000 | 64 | 128 | YY | 6 | 9 | 0 | 0 | 0 | 0 | 8 | 9 |
| 71-61 | 6 | M | .72000 | 65 | 129 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 9 | 9 |
| 71-61 | 6 | M | .72000 | 65 | 130 | YY | 3 | 7 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 6 | M | .72000 | 66 | 131 | YY | 5 | 6 | 0 | 0 | 1 | 3 | 6 | 7 |
| 71-61 | 6 | M | .72000 | 66 | 132 | YY | 4 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 6 | M | .72000 | 67 | 133 | YY | 7 | 4 | 0 | 0 | 3 | 1 | 10 | 4 |
| 71-61 | 6 | M | .72000 | 67 | 134 | YY | 7 | 5 | 0 | 0 | 0 | 3 | 7 | 5 |
| 71-61 | 6 | M | .72000 | 68 | 135 | YY | 2 | 4 | 0 | 0 | 1 | 1 | 5 | 6 |
| 71-61 | 6 | M | .72000 | 68 | 136 | YY | 7 | 5 | 0 | 0 | 1 | 0 | 13 | 9 |
| 71-61 | 6 | M | .72000 | 69 | 137 | YY | 8 | 3 | 0 | 0 | 1 | 0 | 8 | 3 |
| 71-61 | 6 | M | .72000 | 69 | 138 | YY | 5 | 4 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 6 | M | .72000 | 70 | 139 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 6 | M | .72000 | 70 | 140 | Y | 5 | 5 | 0 | 1 | 0 | 0 | 6 | 6 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|------|
| | | | | | | | L | R | L | R | L | R |
| CONTROL | 7 | S 0.00000 | 1 | 1 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 8 8 |
| CONTROL | 7 | S 0.00000 | 1 | 2 | Y | 5 | 3 | 0 | 0 | 0 | 0 | 6 5 |
| CONTROL | 7 | S 0.00000 | 2 | 3 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 6 |
| CONTROL | 7 | S 0.00000 | 2 | 4 | Y | 2 | 4 | 0 | 0 | 1 | 0 | 5 9 |
| CONTROL | 7 | S 0.00000 | 3 | 5 | Y | 5 | 5 | 0 | 0 | 0 | 0 | 6 6 |
| CONTROL | 7 | S 0.00000 | 3 | 6 | Y | 0 | 1 | 0 | 0 | 0 | 0 | 2 7 |
| CONTROL | 7 | S 0.00000 | 4 | 7 | Y | 4 | 9 | 4 | 9 | 0 | 0 | 4 9 |
| CONTROL | 7 | S 0.00000 | 4 | 8 | Y | 2 | 7 | 0 | 0 | 0 | 0 | 2 9 |
| CONTROL | 7 | S 0.00000 | 5 | 9 | Y | 4 | 6 | 0 | 0 | 1 | 1 | 4 8 |
| CONTROL | 7 | S 0.00000 | 5 | 10 | Y | 10 | 3 | 0 | 0 | 0 | 0 | 10 3 |
| CONTROL | 7 | S 0.00000 | 6 | 11 | Y | 0 | 2 | 0 | 0 | 0 | 2 | 4 6 |
| CONTROL | 7 | S 0.00000 | 6 | 12 | Y | 6 | 5 | 0 | 0 | 1 | 2 | 6 5 |
| CONTROL | 7 | S 0.00000 | 7 | 13 | Y | 6 | 5 | 0 | 1 | 0 | 0 | 8 5 |
| CONTROL | 7 | S 0.00000 | 7 | 14 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 |
| CONTROL | 7 | S 0.00000 | 8 | 15 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 5 8 |
| CONTROL | 7 | S 0.00000 | 8 | 16 | Y | 4 | 8 | 1 | 0 | 0 | 0 | 5 8 |
| CONTROL | 7 | S 0.00000 | 9 | 17 | Y | 9 | 4 | 0 | 0 | 0 | 0 | 9 4 |
| CONTROL | 7 | S 0.00000 | 9 | 18 | Y | 5 | 6 | 1 | 0 | 0 | 0 | 5 6 |
| CONTROL | 7 | S 0.00000 | 10 | 19 | Y | 5 | 8 | 0 | 0 | 1 | 0 | 6 8 |
| CONTROL | 7 | S 0.00000 | 10 | 20 | Y | 7 | 8 | 0 | 0 | 1 | 0 | 7 8 |
| 71-61 | 7 | S .00720 | 51 | 101 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 6 |
| 71-61 | 7 | S .00720 | 51 | 102 | Y | 9 | 7 | 0 | 0 | 0 | 0 | 9 7 |
| 71-61 | 7 | S .00720 | 52 | 103 | Y | 2 | 9 | 0 | 0 | 0 | 0 | 2 9 |
| 71-61 | 7 | S .00720 | 52 | 104 | Y | 8 | 5 | 1 | 2 | 0 | 0 | 8 5 |
| 71-61 | 7 | S .00720 | 53 | 105 | Y | 0 | 1 | 0 | 0 | 0 | 0 | 6 6 |
| 71-61 | 7 | S .00720 | 53 | 106 | Y | 4 | 4 | 0 | 0 | 0 | 0 | 6 4 |
| 71-61 | 7 | S .00720 | 54 | 107 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 6 7 |
| 71-61 | 7 | S .00720 | 54 | 108 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 4 7 |
| 71-61 | 7 | S .00720 | 55 | 109 | Y | 6 | 6 | 2 | 3 | 0 | 0 | 6 6 |
| 71-61 | 7 | S .00720 | 55 | 110 | Y | 7 | 5 | 0 | 0 | 0 | 0 | .8 7 |
| 71-61 | 7 | S .00720 | 56 | 111 | Y | 2 | 10 | 0 | 1 | 0 | 0 | 2 10 |
| 71-61 | 7 | S .00720 | 56 | 112 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 7 |
| 71-61 | 7 | S .00720 | 57 | 113 | Y | 6 | 7 | 1 | 0 | 0 | 0 | 6 8 |
| 71-61 | 7 | S .00720 | 57 | 114 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 8 |
| 71-61 | 7 | S .00720 | 58 | 115 | Y | 7 | 7 | 1 | 0 | 0 | 0 | 7 8 |
| 71-61 | 7 | S .00720 | 58 | 116 | Y | 8 | 0 | 0 | 0 | 0 | 0 | 8 5 |
| 71-61 | 7 | S .00720 | 59 | 117 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 9 4 |
| 71-61 | 7 | S .00720 | 59 | 118 | Y | 9 | 4 | 0 | 0 | 0 | 0 | 9 4 |
| 71-61 | 7 | S .00720 | 60 | 119 | Y | 6 | 7 | 0 | 0 | 0 | 1 | 6 7 |
| 71-61 | 7 | S .00720 | 60 | 120 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 5 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|--------|----------|------------|-------|----------|----|--------------|---|-------------|---|---------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 7 | S | .07200 | 61 | 121 | Y | 5 | 5 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 7 | S | .07200 | 61 | 122 | YY | 9 | 5 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 7 | S | .07200 | 62 | 123 | YY | 8 | 6 | 0 | 0 | 1 | 3 | 8 | 7 |
| 71-61 | 7 | S | .07200 | 62 | 124 | YY | 8 | 7 | 0 | 0 | 0 | 0 | 8 | 7 |
| 71-61 | 7 | S | .07200 | 63 | 125 | YY | 5 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | S | .07200 | 63 | 126 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | S | .07200 | 64 | 127 | YY | 6 | 8 | 0 | 0 | 0 | 1 | 6 | 9 |
| 71-61 | 7 | S | .07200 | 64 | 128 | YY | 8 | 6 | 1 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 7 | S | .07200 | 65 | 129 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 7 | S | .07200 | 65 | 130 | YY | 5 | 6 | 1 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 7 | S | .07200 | 66 | 131 | YY | 6 | 7 | 0 | 0 | 1 | 0 | 7 | 7 |
| 71-61 | 7 | S | .07200 | 66 | 132 | YY | 4 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 7 | S | .07200 | 67 | 133 | YY | 4 | 3 | 0 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 7 | S | .07200 | 67 | 134 | YY | 6 | 6 | 0 | 0 | 1 | 0 | 6 | 7 |
| 71-61 | 7 | S | .07200 | 68 | 135 | YY | 7 | 6 | 1 | 0 | 1 | 1 | 8 | 8 |
| 71-61 | 7 | S | .07200 | 68 | 136 | YY | 4 | 9 | 0 | 0 | 1 | 2 | 5 | 9 |
| 71-61 | 7 | S | .07200 | 69 | 137 | YY | 7 | 3 | 0 | 0 | 0 | 0 | 9 | 3 |
| 71-61 | 7 | S | .07200 | 69 | 138 | YY | 6 | 7 | 0 | 0 | 1 | 1 | 6 | 7 |
| 71-61 | 7 | S | .07200 | 70 | 139 | YY | 10 | 5 | 0 | 0 | 0 | 0 | 10 | 5 |
| 71-61 | 7 | S | .07200 | 70 | 140 | YY | 7 | 5 | 0 | 0 | 1 | 0 | 7 | 5 |
| 71-61 | 7 | S | .72000 | 71 | 141 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 7 | S | .72000 | 71 | 142 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 7 | S | .72000 | 72 | 143 | YY | 6 | 7 | 0 | 0 | 1 | 0 | 6 | 7 |
| 71-61 | 7 | S | .72000 | 72 | 144 | YY | 7 | 4 | 1 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 7 | S | .72000 | 73 | 145 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 7 | S | .72000 | 73 | 146 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 6 | 7 |
| 71-61 | 7 | S | .72000 | 74 | 147 | YY | 4 | 1 | 0 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 7 | S | .72000 | 74 | 148 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 7 | S | .72000 | 75 | 149 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 7 | S | .72000 | 75 | 150 | YY | 8 | 4 | 0 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 7 | S | .72000 | 76 | 151 | Y | 5 | 11 | 0 | 0 | 0 | 0 | 5 | 11 |
| 71-61 | 7 | S | .72000 | 76 | 152 | YY | 7 | 8 | 0 | 0 | 0 | 1 | 7 | 8 |
| 71-61 | 7 | S | .72000 | 77 | 153 | YY | 9 | 6 | 0 | 0 | 1 | 0 | 9 | 8 |
| 71-61 | 7 | S | .72000 | 77 | 154 | YY | 6 | 6 | 2 | 1 | 0 | 0 | 10 | 6 |
| 71-61 | 7 | S | .72000 | 78 | 155 | YY | 7 | 6 | 0 | 0 | 0 | 1 | 7 | 7 |
| 71-61 | 7 | S | .72000 | 78 | 156 | YY | 8 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 7 | S | .72000 | 79 | 157 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 7 | S | .72000 | 79 | 158 | YY | 3 | 7 | 0 | 0 | 0 | 0 | 3 | 7 |
| 71-61 | 7 | S | .72000 | 80 | 159 | YY | 3 | 9 | 0 | 0 | 0 | 0 | 3 | 9 |
| 71-61 | 7 | S | .72000 | 80 | 160 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PHEG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----|---------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|------|
| | | | | | | | | L | R | L | R | L | R |
| TEM | 7 | S | .00020 | 11 | 21 | Y | 8 | 4 | 0 | 0 | 0 | 0 | 9 7 |
| TEM | 7 | S | .00020 | 11 | 22 | Y | 3 | 9 | 0 | 0 | 0 | 0 | 5 10 |
| TEM | 7 | S | .00020 | 12 | 23 | Y | 1 | 0 | 0 | 0 | 0 | 0 | 8 6 |
| TEM | 7 | S | .00020 | 12 | 24 | Y | 6 | 6 | 1 | 0 | 0 | 0 | 6 7 |
| TEM | 7 | S | .00020 | 13 | 25 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 6 |
| TEM | 7 | S | .00020 | 13 | 26 | Y | 7 | 6 | 0 | 0 | 1 | 0 | 7 6 |
| TEM | 7 | S | .00020 | 14 | 27 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 7 7 |
| TEM | 7 | S | .00020 | 14 | 28 | Y | 4 | 6 | 0 | 0 | 0 | 0 | 5 6 |
| TEM | 7 | S | .00020 | 15 | 29 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 8 7 |
| TEM | 7 | S | .00020 | 15 | 30 | Y | 8 | 2 | 0 | 0 | 4 | 0 | 9 2 |
| TEM | 7 | S | .00020 | 16 | 31 | Y | 7 | 4 | 1 | 0 | 0 | 0 | 8 4 |
| TEM | 7 | S | .00020 | 16 | 32 | Y | 5 | 7 | 1 | 0 | 0 | 1 | 7 7 |
| TEM | 7 | S | .00020 | 17 | 33 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 5 |
| TEM | 7 | S | .00020 | 17 | 34 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 8 7 |
| TEM | 7 | S | .00020 | 18 | 35 | Y | 7 | 4 | 0 | 0 | 0 | 1 | 0 |
| TEM | 7 | S | .00020 | 18 | 36 | Y | 6 | 0 | 0 | 0 | 0 | 0 | 12 7 |
| TEM | 7 | S | .00020 | 19 | 37 | Y | 4 | 5 | 0 | 0 | 0 | 0 | 6 5 |
| TEM | 7 | S | .00020 | 19 | 38 | Y | 5 | 4 | 1 | 0 | 0 | 1 | 5 4 |
| TEM | 7 | S | .00020 | 20 | 39 | Y | 4 | 7 | 0 | 0 | 1 | 0 | 7 7 |
| TEM | 7 | S | .00020 | 20 | 40 | Y | | | | | | | |
| CONTROL | 7 | M | 0.00000 | 1 | 1 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 8 7 |
| CONTROL | 7 | M | 0.00000 | 1 | 2 | Y | 4 | 11 | 0 | 0 | 0 | 0 | 4 11 |
| CONTROL | 7 | M | 0.00000 | 2 | 3 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 6 6 |
| CONTROL | 7 | M | 0.00000 | 2 | 4 | Y | 2 | 8 | 0 | 0 | 0 | 1 | 2 8 |
| CONTROL | 7 | M | 0.00000 | 3 | 5 | Y | 8 | 6 | 0 | 0 | 0 | 1 | 8 7 |
| CONTROL | 7 | M | 0.00000 | 3 | 6 | Y | 6 | 8 | 0 | 0 | 0 | 1 | 6 8 |
| CONTROL | 7 | M | 0.00000 | 4 | 7 | Y | 9 | 6 | 1 | 0 | 0 | 0 | 9 7 |
| CONTROL | 7 | M | 0.00000 | 4 | 8 | Y | 6 | 6 | 0 | 0 | 0 | 0 | 7 6 |
| CONTROL | 7 | M | 0.00000 | 5 | 9 | Y | 4 | 7 | 1 | 2 | 0 | 0 | 4 7 |
| CONTROL | 7 | M | 0.00000 | 5 | 10 | Y | 9 | 3 | 0 | 0 | 0 | 0 | 12 3 |
| CONTROL | 7 | M | 0.00000 | 6 | 11 | Y | 8 | 6 | 0 | 0 | 1 | 0 | 8 7 |
| CONTROL | 7 | M | 0.00000 | 6 | 12 | Y | 3 | 10 | 0 | 0 | 0 | 0 | 4 11 |
| CONTROL | 7 | M | 0.00000 | 7 | 13 | Y | 12 | 1 | 0 | 0 | 0 | 0 | 12 1 |
| CONTROL | 7 | M | 0.00000 | 7 | 14 | Y | 8 | 5 | 0 | 0 | 0 | 0 | 8 5 |
| CONTROL | 7 | M | 0.00000 | 8 | 15 | Y | 7 | 7 | 0 | 0 | 1 | 0 | 7 7 |
| CONTROL | 7 | M | 0.00000 | 8 | 16 | Y | 7 | 9 | 0 | 1 | 0 | 0 | 6 11 |
| CONTROL | 7 | M | 0.00000 | 9 | 17 | Y | 6 | 9 | 0 | 0 | 0 | 0 | 6 7 |
| CONTROL | 7 | M | 0.00000 | 9 | 18 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 6 9 |
| CONTROL | 7 | M | 0.00000 | 10 | 19 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 6 9 |
| CONTROL | 7 | M | 0.00000 | 10 | 20 | Y | 9 | 5 | 0 | 0 | 0 | 0 | 9 5 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|---------------|------|-----|--------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|---|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 7 | M | .00720 | 41 | 81 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| 71-61 | 7 | M | .00720 | 41 | 82 | YY | 6 | 8 | 1 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 7 | M | .00720 | 42 | 83 | YY | 7 | 6 | 0 | 0 | 1 | 2 | 8 | 6 |
| 71-61 | 7 | M | .00720 | 42 | 84 | YY | 3 | 11 | 0 | 0 | 0 | 0 | 3 | 11 |
| 71-61 | 7 | M | .00720 | 43 | 85 | YY | 4 | 8 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 7 | M | .00720 | 43 | 86 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 7 | M | .00720 | 44 | 87 | YY | 8 | 6 | 0 | 0 | 1 | 0 | 8 | 6 |
| 71-61 | 7 | M | .00720 | 44 | 88 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 7 | M | .00720 | 45 | 89 | YY | 4 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 7 | M | .00720 | 45 | 90 | YY | 4 | 10 | 0 | 0 | 0 | 0 | 6 | 13 |
| 71-61 | 7 | M | .00720 | 46 | 91 | YY | 6 | 10 | 0 | 0 | 0 | 0 | 6 | 10 |
| 71-61 | 7 | M | .00720 | 46 | 92 | YY | 5 | 8 | 0 | 0 | 0 | 0 | 5 | 8 |
| 71-61 | 7 | M | .00720 | 47 | 93 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 7 | M | .00720 | 47 | 94 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | M | .00720 | 48 | 95 | YY | 7 | 7 | 0 | 0 | 3 | 2 | 7 | 7 |
| 71-61 | 7 | M | .00720 | 48 | 96 | YY | 5 | 4 | 1 | 0 | 0 | 0 | 7 | 5 |
| 71-61 | 7 | M | .00720 | 49 | 97 | YY | 3 | 9 | 0 | 0 | 0 | 0 | 3 | 9 |
| 71-61 | 7 | M | .00720 | 49 | 98 | YY | 6 | 7 | 0 | 0 | 1 | 1 | 6 | 7 |
| 71-61 | 7 | M | .00720 | 50 | 99 | YY | 3 | 8 | 0 | 0 | 0 | 0 | 3 | 8 |
| 71-61 | 7 | M | .00720 | 50 | 100 | Y | 5 | 9 | 1 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 7 | M | .07200 | 51 | 101 | Y | 7 | 3 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 7 | M | .07200 | 51 | 102 | YY | 4 | 10 | 1 | 0 | 0 | 0 | 5 | 12 |
| 71-61 | 7 | M | .07200 | 52 | 103 | YY | 6 | 4 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | M | .07200 | 52 | 104 | YY | 5 | 4 | 0 | 0 | 0 | 0 | 5 | 6 |
| 71-61 | 7 | M | .07200 | 53 | 105 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | M | .07200 | 53 | 106 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | M | .07200 | 54 | 107 | YY | 4 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 7 | M | .07200 | 54 | 108 | YY | 8 | 5 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 7 | M | .07200 | 55 | 109 | YY | 8 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 7 | M | .07200 | 55 | 110 | YY | 4 | 6 | 0 | 0 | 0 | 0 | 4 | 8 |
| 71-61 | 7 | M | .07200 | 56 | 111 | YY | 8 | 7 | 0 | 0 | 1 | 0 | 8 | 7 |
| 71-61 | 7 | M | .07200 | 56 | 112 | YY | 7 | 7 | 0 | 0 | 0 | 0 | 8 | 7 |
| 71-61 | 7 | M | .07200 | 57 | 113 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 7 | M | .07200 | 57 | 114 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 7 | M | .07200 | 58 | 115 | YY | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | M | .07200 | 58 | 116 | YY | 7 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 7 | M | .07200 | 59 | 117 | YY | 6 | 6 | 0 | 1 | 0 | 0 | 6 | 6 |
| 71-61 | 7 | M | .07200 | 59 | 118 | YY | 4 | 9 | 0 | 1 | 0 | 0 | 4 | 9 |
| 71-61 | 7 | M | .07200 | 60 | 119 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 8 | 7 |
| 71-61 | 7 | M | .07200 | 60 | 120 | Y | 6 | 7 | 1 | 1 | 0 | 0 | 6 | 7 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PRE _o | IMPLANTS | | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|------------------|------|-----|--------|-------------|---------------|------------------|----------|----|-----------------|---|----------------|---|------------------|----|
| | | | | | | | L | R | L | R | L | R | L | R |
| 71-61 | 7 | M | .72000 | 61 | 121 | Y | 8 | 5 | 0 | 0 | 1 | 0 | 9 | 5 |
| 71-61 | 7 | M | .72000 | 61 | 122 | Y | 7 | 1 | 0 | 0 | 2 | 0 | 7 | 7 |
| 71-61 | 7 | M | .72000 | 62 | 123 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 7 | M | .72000 | 62 | 124 | Y | 0 | 5 | 0 | 0 | 0 | 0 | 4 | 6 |
| 71-61 | 7 | M | .72000 | 63 | 125 | Y | 5 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 7 | M | .72000 | 63 | 126 | Y | 5 | 10 | 0 | 1 | 0 | 0 | 6 | 10 |
| 71-61 | 7 | M | .72000 | 64 | 127 | Y | 3 | 8 | 0 | 1 | 0 | 2 | 4 | 8 |
| 71-61 | 7 | M | .72000 | 64 | 128 | Y | 7 | 8 | 0 | 0 | 0 | 0 | 11 | 13 |
| 71-61 | 7 | M | .72000 | 65 | 129 | Y | 5 | 8 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 7 | M | .72000 | 65 | 130 | Y | 7 | 3 | 0 | 0 | 0 | 0 | 8 | 3 |
| 71-61 | 7 | M | .72000 | 66 | 131 | Y | 5 | 4 | 0 | 0 | 0 | 0 | 9 | 7 |
| 71-61 | 7 | M | .72000 | 66 | 132 | Y | 6 | 8 | 0 | 0 | 0 | 0 | 6 | 8 |
| 71-61 | 7 | M | .72000 | 67 | 133 | Y | 2 | 7 | 0 | 0 | 0 | 1 | 2 | 9 |
| 71-61 | 7 | M | .72000 | 67 | 134 | Y | 7 | 7 | 0 | 0 | 0 | 0 | 8 | 8 |
| 71-61 | 7 | M | .72000 | 68 | 135 | Y | 7 | 6 | 0 | 0 | 0 | 1 | 7 | 6 |
| 71-61 | 7 | M | .72000 | 68 | 136 | Y | 7 | 8 | 0 | 0 | 0 | 1 | 7 | 8 |
| 71-61 | 7 | M | .72000 | 69 | 137 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 7 | M | .72000 | 69 | 138 | Y | 3 | 3 | 0 | 0 | 0 | 0 | 9 | 12 |
| 71-61 | 7 | M | .72000 | 70 | 139 | Y | 10 | 3 | 1 | 0 | 0 | 0 | 11 | 3 |
| 71-61 | 7 | M | .72000 | 70 | 140 | Y | 6 | 5 | 0 | 0 | 1 | 0 | 6 | 8 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

PAGE 36

| TEST MATERIAL | WEEK | S/M DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | |
|---------------|------|-----------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|----|
| | | | | | | | L | R | L | R | L | R |
| CONTROL | 8 | S 0.00000 | 1 | 1 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 6 |
| CONTROL | 8 | S 0.00000 | 1 | 2 | YY | 7 | 9 | 0 | 0 | 0 | 0 | 7 |
| CONTROL | 8 | S 0.00000 | 2 | 3 | YY | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| CONTROL | 8 | S 0.00000 | 2 | 4 | YY | 9 | 5 | 0 | 0 | 0 | 0 | 5 |
| CONTROL | 8 | S 0.00000 | 3 | 5 | YY | 9 | 5 | 0 | 0 | 0 | 0 | 9 |
| CONTROL | 8 | S 0.00000 | 3 | 6 | NY | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL | 8 | S 0.00000 | 4 | 7 | YY | 8 | 3 | 0 | 0 | 0 | 0 | 8 |
| CONTROL | 8 | S 0.00000 | 4 | 8 | NY | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL | 8 | S 0.00000 | 5 | 9 | YY | 7 | 8 | 0 | 0 | 0 | 0 | 7 |
| CONTROL | 8 | S 0.00000 | 5 | 10 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 8 |
| CONTROL | 8 | S 0.00000 | 6 | 11 | YY | 8 | 6 | 0 | 1 | 0 | 0 | 6 |
| CONTROL | 8 | S 0.00000 | 6 | 12 | YY | 2 | 0 | 0 | 0 | 0 | 0 | 6 |
| CONTROL | 8 | S 0.00000 | 7 | 13 | YY | 6 | 7 | 0 | 2 | 0 | 0 | 7 |
| CONTROL | 8 | S 0.00000 | 7 | 14 | YY | 3 | 8 | 0 | 0 | 0 | 1 | 7 |
| CONTROL | 8 | S 0.00000 | 8 | 15 | YY | 5 | 7 | 0 | 0 | 0 | 1 | 8 |
| CONTROL | 8 | S 0.00000 | 8 | 16 | YY | 7 | 7 | 0 | 0 | 0 | 0 | 5 |
| CONTROL | 8 | S 0.00000 | 9 | 17 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 8 |
| CONTROL | 8 | S 0.00000 | 9 | 18 | YY | 6 | 6 | 0 | 0 | 2 | 0 | 6 |
| CONTROL | 8 | S 0.00000 | 10 | 19 | NY | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL | 8 | S 0.00000 | 10 | 20 | Y | 10 | 5 | 0 | 0 | 0 | 0 | 10 |
| 71-61 | 8 | S .00720 | 51 | 101 | Y | 11 | 3 | 0 | 0 | 2 | 0 | 11 |
| 71-61 | 8 | S .00720 | 51 | 102 | YY | 4 | 8 | 0 | 0 | 0 | 0 | 4 |
| 71-61 | 8 | S .00720 | 52 | 103 | YY | 5 | 8 | 0 | 0 | 0 | 0 | 5 |
| 71-61 | 8 | S .00720 | 52 | 104 | YY | 7 | 7 | 2 | 2 | 0 | 0 | 7 |
| 71-61 | 8 | S .00720 | 53 | 105 | YY | 7 | 5 | 0 | 0 | 0 | 2 | 8 |
| 71-61 | 8 | S .00720 | 53 | 106 | YY | 6 | 6 | 0 | 0 | 0 | 0 | 6 |
| 71-61 | 8 | S .00720 | 54 | 107 | YY | 6 | 5 | 0 | 0 | 0 | 0 | 7 |
| 71-61 | 8 | S .00720 | 54 | 108 | YY | 8 | 7 | 0 | 0 | 0 | 0 | 8 |
| 71-61 | 8 | S .00720 | 55 | 109 | YY | 8 | 6 | 0 | 1 | 0 | 0 | 6 |
| 71-61 | 8 | S .00720 | 55 | 110 | YY | 6 | 8 | 0 | 0 | 0 | 0 | 7 |
| 71-61 | 8 | S .00720 | 56 | 111 | YY | 7 | 6 | 3 | 0 | 0 | 0 | 6 |
| 71-61 | 8 | S .00720 | 56 | 112 | YY | 8 | 5 | 0 | 0 | 0 | 0 | 9 |
| 71-61 | 8 | S .00720 | 57 | 113 | YY | 8 | 7 | 0 | 0 | 0 | 0 | 8 |
| 71-61 | 8 | S .00720 | 57 | 114 | YY | 5 | 8 | 0 | 0 | 0 | 0 | 5 |
| 71-61 | 8 | S .00720 | 58 | 115 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 8 |
| 71-61 | 8 | S .00720 | 58 | 116 | YY | 5 | 7 | 0 | 0 | 0 | 0 | 6 |
| 71-61 | 8 | S .00720 | 59 | 117 | YY | 7 | 4 | 0 | 0 | 0 | 0 | 9 |
| 71-61 | 8 | S .00720 | 59 | 118 | YY | 2 | 12 | 0 | 0 | 0 | 1 | 2 |
| 71-61 | 8 | S .00720 | 60 | 119 | YY | 3 | 9 | 0 | 0 | 0 | 0 | 4 |
| 71-61 | 8 | S .00720 | 60 | 120 | Y | | | | | | | 9 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | PREG. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|---------------|------|-----|--------|----------|------------|-------|----------|--------------|---|-------------|---|---------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| 71-61 | 8 | S | .07200 | 61 | 121 | Y | 7 | 9 | 1 | 0 | 0 | 0 | 7 | 9 |
| 71-61 | 8 | S | .07200 | 61 | 122 | Y | 4 | 7 | 0 | 0 | 0 | 1 | 4 | 7 |
| 71-61 | 8 | S | .07200 | 62 | 123 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 6 |
| 71-61 | 8 | S | .07200 | 62 | 124 | Y | 6 | 7 | 0 | 0 | 1 | 0 | 6 | 7 |
| 71-61 | 8 | S | .07200 | 63 | 125 | Y | 5 | 5 | 0 | 1 | 0 | 0 | 6 | 8 |
| 71-61 | 8 | S | .07200 | 63 | 126 | Y | 8 | 5 | 1 | 0 | 0 | 0 | 8 | 6 |
| 71-61 | 8 | S | .07200 | 64 | 127 | Y | 6 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 71-61 | 8 | S | .07200 | 64 | 128 | Y | 7 | 6 | 0 | 0 | 0 | 0 | 8 | 7 |
| 71-61 | 8 | S | .07200 | 65 | 129 | Y | 7 | 5 | 2 | 1 | 0 | 0 | 7 | 5 |
| 71-61 | 8 | S | .07200 | 65 | 130 | Y | 7 | 9 | 0 | 2 | 0 | 0 | 7 | 9 |
| 71-61 | 8 | S | .07200 | 66 | 131 | Y | 5 | 1 | 0 | 0 | 0 | 0 | 8 | 5 |
| 71-61 | 8 | S | .07200 | 66 | 132 | Y | 3 | 11 | 0 | 1 | 0 | 0 | 3 | 11 |
| 71-61 | 8 | S | .07200 | 67 | 133 | Y | 5 | 7 | 0 | 0 | 1 | 0 | 6 | 7 |
| 71-61 | 8 | S | .07200 | 67 | 134 | Y | 8 | 5 | 0 | 0 | 0 | 0 | 9 | 5 |
| 71-61 | 8 | S | .07200 | 68 | 135 | Y | 4 | 9 | 0 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 8 | S | .07200 | 68 | 136 | Y | 1 | 0 | 0 | 0 | 0 | 0 | 7 | 4 |
| 71-61 | 8 | S | .07200 | 69 | 137 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 8 | S | .07200 | 69 | 138 | Y | 9 | 6 | 0 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 8 | S | .07200 | 70 | 139 | Y | 5 | 7 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 8 | S | .07200 | 70 | 140 | Y | 7 | 6 | 1 | 0 | 0 | 0 | 9 | 6 |
| 71-61 | 8 | S | .72000 | 71 | 141 | Y | 9 | 5 | 0 | 0 | 0 | 0 | 9 | 7 |
| 71-61 | 8 | S | .72000 | 71 | 142 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 8 | S | .72000 | 72 | 143 | Y | 7 | 7 | 1 | 0 | 0 | 0 | 10 | 8 |
| 71-61 | 8 | S | .72000 | 72 | 144 | Y | 8 | 5 | 2 | 1 | 0 | 0 | 11 | 10 |
| 71-61 | 8 | S | .72000 | 73 | 145 | Y | 6 | 4 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 8 | S | .72000 | 73 | 146 | Y | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 3 |
| 71-61 | 8 | S | .72000 | 74 | 147 | Y | 3 | 7 | 0 | 0 | 0 | 0 | 7 | 8 |
| 71-61 | 8 | S | .72000 | 74 | 148 | Y | 5 | 6 | 0 | 0 | 0 | 0 | 5 | 7 |
| 71-61 | 8 | S | .72000 | 75 | 149 | Y | 7 | 5 | 0 | 1 | 0 | 0 | 7 | 5 |
| 71-61 | 8 | S | .72000 | 75 | 150 | Y | 4 | 10 | 0 | 0 | 0 | 0 | 4 | 10 |
| 71-61 | 8 | S | .72000 | 76 | 151 | Y | 4 | 8 | 0 | 0 | 0 | 0 | 4 | 9 |
| 71-61 | 8 | S | .72000 | 76 | 152 | Y | 2 | 10 | 0 | 0 | 0 | 0 | 3 | 11 |
| 71-61 | 8 | S | .72000 | 77 | 153 | Y | 8 | 4 | 1 | 0 | 0 | 0 | 8 | 4 |
| 71-61 | 8 | S | .72000 | 77 | 154 | Y | 6 | 10 | 0 | 1 | 0 | 1 | 6 | 11 |
| 71-61 | 8 | S | .72000 | 78 | 155 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 6 |
| 71-61 | 8 | S | .72000 | 78 | 156 | Y | 8 | 6 | 2 | 1 | 0 | 0 | 8 | 6 |
| 71-61 | 8 | S | .72000 | 79 | 157 | Y | 4 | 9 | 0 | 0 | 0 | 0 | 5 | 9 |
| 71-61 | 8 | S | .72000 | 79 | 158 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 71-61 | 8 | S | .72000 | 80 | 159 | Y | 10 | 2 | 0 | 0 | 0 | 0 | 10 | 2 |
| 71-61 | 8 | S | .72000 | 80 | 160 | Y | 6 | 7 | 0 | 0 | 1 | 5 | 6 | 7 |

DOMINANT LETHAL STUDY OF COMPOUND 71-61

SODIUM ACID PYROPHOSPHATE

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| TEST MATERIAL | WEEK | S/M | DOSE | MALE NO. | FEMALE NO. | G. | IMPLANTS | EARLY DEATHS | | LATE DEATHS | | CORPORA LUTEA | | |
|------------------|------|-----|--------|-------------|---------------|----|----------|-----------------|---|----------------|---|------------------|----|----|
| | | | | | | | | L | R | L | R | L | R | |
| TEM | 8 | S | .00020 | 11 | 21 | Y | 9 | 4 | 0 | 0 | 0 | 0 | 10 | 4 |
| TEM | 8 | S | .00020 | 11 | 22 | Y | 7 | 5 | 0 | 0 | 0 | 0 | 7 | 5 |
| TEM | 8 | S | .00020 | 12 | 23 | Y | 8 | 7 | 0 | 0 | 2 | 1 | 8 | 8 |
| TEM | 8 | S | .00020 | 12 | 24 | Y | 9 | 5 | 0 | 0 | 0 | 1 | 9 | 6 |
| TEM | 8 | S | .00020 | 13 | 25 | Y | 8 | 6 | 0 | 0 | 0 | 0 | 8 | 6 |
| TEM | 8 | S | .00020 | 13 | 26 | Y | 4 | 10 | 0 | 0 | 3 | 1 | 4 | 10 |
| TEM | 8 | S | .00020 | 14 | 27 | Y | 1 | 2 | 0 | 0 | 0 | 0 | 8 | 5 |
| TEM | 8 | S | .00020 | 14 | 28 | Y | 9 | 5 | 0 | 0 | 1 | 1 | 9 | 5 |
| TEM | 8 | S | .00020 | 15 | 29 | Y | 6 | 7 | 1 | 0 | 1 | 1 | 7 | 7 |
| TEM | 8 | S | .00020 | 15 | 30 | Y | 5 | 6 | 0 | 0 | 0 | 1 | 6 | 7 |
| TEM | 8 | S | .00020 | 16 | 31 | Y | 10 | 4 | 1 | 0 | 0 | 0 | 12 | 4 |
| TEM | 8 | S | .00020 | 16 | 32 | Y | 6 | 5 | 0 | 0 | 0 | 0 | 6 | 5 |
| TEM | 8 | S | .00020 | 17 | 33 | N | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TEM | 8 | S | .00020 | 17 | 34 | Y | 6 | 5 | 0 | 0 | 0 | 1 | 6 | 5 |
| TEM | 8 | S | .00020 | 18 | 35 | Y | 3 | 10 | 0 | 0 | 0 | 0 | 3 | 10 |
| TEM | 8 | S | .00020 | 18 | 36 | Y | 9 | 6 | 0 | 0 | 4 | 2 | 10 | 6 |
| TEM | 8 | S | .00020 | 19 | 37 | Y | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 10 |
| TEM | 8 | S | .00020 | 19 | 38 | Y | 7 | 4 | 0 | 0 | 2 | 2 | 7 | 7 |
| TEM | 8 | S | .00020 | 20 | 39 | Y | 3 | 10 | 0 | 0 | 1 | 1 | 3 | 10 |
| TEM | 8 | S | .00020 | 20 | 40 | Y | 0 | 3 | 0 | 0 | 0 | 0 | 6 | 6 |

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE FERTILITY INDEX
 (1 DEGREE OF FREEDOM) BASED ON THE DOSE LEVELS

| | .0072 G/KG | | .072 G/KG | | .72 G/KG | | | | |
|------|------------|----------|-----------|----------|----------|----------|----------------|--------------|----------------|
| WEEK | N PRG | N MTD | N PRG | N MTD | N PRG | N MTD | CHISQ (C-1) | CHISQ (1) | ARMTG CHISQ |
| ---- | --- | --- | --- | --- | --- | --- | ----- | ----- | ----- |

SINGLE TREATMENT

| | | | | | | | | | |
|---|----|----|----|----|----|----|------|------|------|
| 1 | 16 | 20 | 19 | 20 | 18 | 20 | 2.26 | .16 | 2.10 |
| 2 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 2.02 | .01 |
| 3 | 19 | 20 | 20 | 20 | 20 | 20 | 2.03 | .66 | 1.37 |
| 4 | 20 | 20 | 19 | 20 | 18 | 20 | 2.11 | 1.72 | .38 |
| 5 | 20 | 20 | 20 | 20 | 17 | 20 | 6.32 | 6.27 | .04 |
| 6 | 20 | 20 | 19 | 20 | 17 | 20 | 3.75 | 3.52 | .23 |
| 7 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 2.02 | .01 |
| 8 | 20 | 20 | 20 | 20 | 18 | 20 | 4.14 | 4.11 | .03 |

MULTIPLE TREATMENT

| | | | | | | | | | |
|---|----|----|----|----|----|----|-------|-------|-----|
| 1 | 19 | 20 | 19 | 20 | 17 | 20 | 1.75 | 1.73 | .01 |
| 2 | 20 | 20 | 20 | 20 | 15 | 20 | 10.91 | 10.84 | .07 |
| 3 | 20 | 20 | 20 | 20 | 18 | 20 | 4.14 | 4.11 | .03 |
| 4 | 20 | 20 | 20 | 20 | 17 | 20 | 6.32 | 6.27 | .04 |
| 5 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 2.02 | .01 |
| 6 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 2.02 | .01 |
| 7 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 2.02 | .01 |

ARMITAGE TEST FOR A LINEAR TREND IN PRO.
(1 DEGREE OF FREEDOM)TESTS FOR THE FERTILITY INDEX
BASED ON THE LOGARITHMS OF THE DOSE LEVELS

.0072 G/KG .072 G/KG .72 G/KG

| WEEK | N | | N | | N | | CHISQ (C-1) | CHISQ (1) | ARMTG CHISQ |
|------|-----|-----|-----|-----|-----|-----|----------------|--------------|----------------|
| | PRG | MTD | PRG | MTD | PRG | MTD | | | |

SINGLE TREATMENT

| | | | | | | | | | |
|---|----|----|----|----|----|----|------|------|------|
| 1 | 16 | 20 | 19 | 20 | 18 | 20 | 2.26 | .97 | 1.29 |
| 2 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 1.53 | .51 |
| 3 | 19 | 20 | 20 | 20 | 20 | 20 | 2.03 | 1.53 | .51 |
| 4 | 20 | 20 | 19 | 20 | 18 | 20 | 2.11 | 2.11 | -.00 |
| 5 | 20 | 20 | 20 | 20 | 17 | 20 | 6.32 | 4.74 | 1.58 |
| 6 | 20 | 20 | 19 | 20 | 17 | 20 | 3.75 | 3.62 | .13 |
| 7 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 1.53 | .51 |
| 8 | 20 | 20 | 20 | 20 | 18 | 20 | 4.14 | 3.10 | 1.03 |

MULTIPLE TREATMENT

| | | | | | | | | | |
|---|----|----|----|----|----|----|-------|------|------|
| 1 | 19 | 20 | 19 | 20 | 17 | 20 | 1.75 | 1.31 | .44 |
| 2 | 20 | 20 | 20 | 20 | 15 | 20 | 10.91 | 8.18 | 2.73 |
| 3 | 20 | 20 | 20 | 20 | 18 | 20 | 4.14 | 3.10 | 1.03 |
| 4 | 20 | 20 | 20 | 20 | 17 | 20 | 6.32 | 4.74 | 1.58 |
| 5 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 1.53 | .51 |
| 6 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 1.53 | .51 |
| 7 | 20 | 20 | 20 | 20 | 19 | 20 | 2.03 | 1.53 | .51 |

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTION
 BASED ON THE DOSE LEVELS AND INCLUDING THE CONTROL GROUP
 (2 DEGREES OF FREEDOM)

| WEEK | CONTROL | | | .0072 G/KG | | | .072 G/KG | | | .72 G/KG | | | ARMTG CHISQ | |
|--------------------|---------|-----|--|------------|-----|--|-----------|-----|--|----------|-----|-------|----------------|------|
| | N | N | | N | N | | N | N | | N | N | | | |
| | PRG | MTD | | PRG | MTD | | PRG | MTD | | PRG | MTD | | | |
| SINGLE TREATMENT | | | | | | | | | | | | | | |
| 1 | 19 | 20 | | 16 | 20 | | 19 | 20 | | 18 | 20 | 3.33 | .01 | 3.33 |
| 2 | 20 | 20 | | 20 | 20 | | 20 | 20 | | 19 | 20 | 3.04 | 3.01 | .03 |
| 3 | 20 | 20 | | 19 | 20 | | 20 | 20 | | 20 | 20 | 3.04 | .41 | 2.63 |
| 4 | 19 | 20 | | 20 | 20 | | 19 | 20 | | 18 | 20 | 2.11 | 1.47 | .64 |
| 5 | 19 | 20 | | 20 | 20 | | 20 | 20 | | 17 | 20 | 6.32 | 5.36 | .96 |
| 6 | 20 | 20 | | 20 | 20 | | 19 | 20 | | 17 | 20 | 6.32 | 5.94 | .38 |
| 7 | 19 | 20 | | 20 | 20 | | 20 | 20 | | 19 | 20 | 2.05 | .58 | 1.47 |
| 8 | 17 | 20 | | 20 | 20 | | 20 | 20 | | 18 | 20 | 5.76 | .46 | 5.30 |
| MULTIPLE TREATMENT | | | | | | | | | | | | | | |
| 1 | 20 | 20 | | 19 | 20 | | 19 | 20 | | 17 | 20 | 4.05 | 3.61 | .45 |
| 2 | 19 | 20 | | 20 | 20 | | 20 | 20 | | 15 | 20 | 12.25 | 11.42 | .83 |
| 3 | 19 | 20 | | 20 | 20 | | 20 | 20 | | 18 | 20 | 3.81 | 2.69 | 1.12 |
| 4 | 20 | 20 | | 20 | 20 | | 20 | 20 | | 17 | 20 | 9.35 | 9.27 | .08 |
| 5 | 19 | 20 | | 20 | 20 | | 20 | 20 | | 19 | 20 | 2.05 | .58 | 1.47 |
| 6 | 20 | 20 | | 20 | 20 | | 20 | 20 | | 19 | 20 | 3.04 | 3.01 | .03 |
| 7 | 20 | 20 | | 20 | 20 | | 20 | 20 | | 19 | 20 | 3.04 | 3.01 | .03 |

T-TEST OF THE NUMBER OF IMPLANTATIONS IN PREGNANT FEMALES

| WEEK | CONTROL | | | | | 71-61 .0072 G/KG | | | | | 71-61 .072 G/KG | | | | | 71-61 .72 G/KG | | | | | TEM .2 MG/KG | | | | |
|------|----------|------|------------|----------|------|------------------|----|---|----------|------|-----------------|----|---|----------|------|----------------|----|---|----------|------|--------------|----|---|--|--|
| | N PRG | MEAN | STD DEV | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | | |

SINGLE TREATMENT

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|-------|------|----|-------|------|----|-------|----|-------|------|----|-------|----|-------|------|----|-------|----|-------|------|----|--------|
| 1 | 19 | 11.47 | 2.20 | 16 | 10.87 | 1.89 | 33 | .855 | 19 | 11.21 | 1.75 | 36 | .409 | 18 | 9.94 | 2.18 | 35 | 2.124 | 14 | 7.93 | 3.89 | 31 | 3.327 |
| 2 | 20 | 10.45 | 3.47 | 20 | 11.90 | 2.15 | 38 | 1.588 | 20 | 11.95 | 2.19 | 38 | 1.635 | 19 | 11.42 | 2.27 | 37 | 1.028 | 9 | 3.11 | 2.15 | 27 | 5.827 |
| 3 | 20 | 12.20 | 2.26 | 19 | 12.95 | 1.35 | 37 | 1.244 | 20 | 12.20 | 1.28 | 38 | 0.000 | 20 | 11.85 | 2.06 | 38 | .512 | 17 | 2.53 | 3.18 | 35 | 10.767 |
| 4 | 19 | 11.84 | 3.53 | 20 | 13.20 | 2.55 | 37 | 1.383 | 19 | 13.05 | 2.32 | 36 | 1.249 | 18 | 12.17 | 3.94 | 35 | .264 | 12 | 4.58 | 4.94 | 29 | 4.772 |
| 5 | 19 | 12.42 | 1.26 | 20 | 11.85 | 2.37 | 37 | .933 | 20 | 13.15 | 1.53 | 37 | 1.618 | 17 | 11.76 | 1.89 | 34 | 1.238 | 19 | 10.32 | 3.51 | 36 | 2.459 |
| 6 | 20 | 11.40 | 2.52 | 20 | 11.45 | 2.95 | 38 | .058 | 19 | 11.58 | 2.09 | 37 | .241 | 17 | 10.41 | 3.20 | 35 | 1.050 | 20 | 12.30 | 2.30 | 38 | 1.180 |
| 7 | 19 | 10.26 | 3.72 | 20 | 11.55 | 3.12 | 37 | 1.172 | 20 | 12.35 | 1.95 | 37 | 2.207 | 19 | 12.47 | 2.34 | 36 | 2.190 | 20 | 10.50 | 2.86 | 37 | .224 |
| 8 | 17 | 11.76 | 4.18 | 20 | 12.95 | 1.28 | 35 | 1.207 | 20 | 11.90 | 3.37 | 35 | .109 | 18 | 11.94 | 3.11 | 33 | .145 | 19 | 11.32 | 4.22 | 34 | .320 |

MULTIPLE TREATMENT

| | | | | | | | | | | | | | | | | | | |
|---|----|-------|------|----|-------|------|----|-------|----|-------|------|----|-------|----|-------|------|----|-------|
| 1 | 20 | 12.60 | 1.57 | 19 | 12.58 | 1.71 | 37 | .040 | 19 | 12.42 | 1.50 | 37 | .363 | 17 | 12.12 | 3.06 | 35 | .617 |
| 2 | 19 | 12.37 | 1.98 | 20 | 12.80 | 2.26 | 37 | .633 | 20 | 12.00 | 1.62 | 37 | .637 | 15 | 12.27 | 2.76 | 32 | .125 |
| 3 | 19 | 12.32 | 1.80 | 20 | 12.85 | 1.60 | 37 | .982 | 20 | 12.45 | 2.46 | 37 | .194 | 18 | 12.56 | 2.06 | 35 | .377 |
| 4 | 20 | 11.75 | 2.20 | 20 | 11.75 | 2.34 | 38 | 0.000 | 20 | 11.55 | 2.04 | 38 | .298 | 17 | 11.06 | 4.15 | 35 | .647 |
| 5 | 19 | 12.32 | 2.29 | 20 | 11.40 | 2.09 | 37 | 1.307 | 20 | 12.45 | 2.39 | 37 | .179 | 19 | 11.37 | 3.04 | 36 | 1.085 |
| 6 | 20 | 11.20 | 2.95 | 20 | 11.80 | 1.51 | 38 | .810 | 20 | 11.80 | 2.84 | 38 | .655 | 19 | 11.16 | 1.80 | 37 | .053 |
| 7 | 20 | 13.20 | 1.36 | 20 | 12.70 | 1.63 | 38 | 1.055 | 20 | 12.25 | 1.65 | 38 | 1.986 | 19 | 11.63 | 3.04 | 37 | 2.097 |

REGRESSION FITS OF THE NUMBER, U, OF IMPLANTATIONS ON 1) DOSE , AND 2) LOG DOSE
 (PREDICTED U = A + BX)
 CONTROL GROUP EXCLUDED

| WEEK | X | N | XBAR | SD X | UBAR | SD U | B | A | TB | DF | VARU X | CV U | VARB | VARA | VARUBAR |
|---------------------|----------|----|-------|------|-------|------|---------|--------|---------|----|--------|-------|--------|-------|---------|
| SINGLE TREATMENT | | | | | | | | | | | | | | | |
| 1 | DOSE | 53 | .27 | .33 | 10.68 | 1.99 | -.1597 | 11.114 | -.1.931 | 51 | 3.7556 | .1815 | .6835 | .1216 | .0709 |
| | LOG DOSE | 53 | -2.54 | 1.86 | 10.68 | 1.99 | -.209 | 10.146 | -.1.427 | 51 | 3.8757 | .1843 | .0215 | .2126 | .0731 |
| 2 | DOSE | 59 | .26 | .32 | 11.76 | 2.18 | -.730 | 11.952 | -.820 | 57 | 4.7628 | .1855 | .7931 | .1338 | .0807 |
| | LOG DOSE | 59 | -2.67 | 1.89 | 11.76 | 2.18 | -.103 | 11.488 | -.677 | 57 | 4.7805 | .1859 | .0231 | .2459 | .0810 |
| 3 | DOSE | 59 | .27 | .33 | 12.32 | 1.64 | -.1.121 | 12.625 | -.1.717 | 57 | 2.6169 | .1313 | .4258 | .0756 | .0444 |
| | LOG DOSE | 59 | -2.59 | 1.89 | 12.32 | 1.64 | -.238 | 11.706 | -.2.140 | 57 | 2.5477 | .1295 | .0123 | .1260 | .0432 |
| 4 | DOSE | 57 | .25 | .32 | 12.82 | 2.98 | -.1.418 | 13.184 | -.1.146 | 55 | 8.8123 | .2315 | 1.5309 | .2533 | .1546 |
| | LOG DOSE | 57 | -2.71 | 1.90 | 12.82 | 2.98 | -.222 | 12.224 | -.1.057 | 55 | 8.8432 | .2319 | .0440 | .4785 | .1551 |
| 5 | DOSE | 57 | .24 | .32 | 12.28 | 2.03 | -.921 | 12.504 | -.1.070 | 55 | 4.1234 | .1654 | .7410 | .1159 | .0723 |
| | LOG DOSE | 57 | -2.75 | 1.87 | 12.28 | 2.03 | -.002 | 12.276 | -.013 | 55 | 4.2092 | .1671 | .0215 | .2371 | .0738 |
| 6 | DOSE | 56 | .25 | .32 | 11.18 | 2.77 | -.1.590 | 11.569 | -.1.360 | 54 | 7.5598 | .2460 | 1.3658 | .2174 | .1350 |
| | LOG DOSE | 56 | -2.75 | 1.88 | 11.18 | 2.77 | -.218 | 10.579 | -.1.100 | 54 | 7.6474 | .2474 | .0392 | .4336 | .1366 |
| 7 | DOSE | 59 | .26 | .32 | 12.12 | 2.51 | .851 | 11.899 | .827 | 57 | 6.3478 | .2079 | 1.0570 | .1783 | .1076 |
| | LOG DOSE | 59 | -2.67 | 1.89 | 12.12 | 2.51 | .202 | 12.658 | .1.158 | 57 | 6.2763 | .2067 | .0304 | .3229 | .1064 |
| 8 | DOSE | 58 | .25 | .32 | 12.28 | 2.73 | -.819 | 12.481 | -.718 | 56 | 7.5305 | .2235 | 1.3008 | .2116 | .1298 |
| | LOG DOSE | 58 | -2.71 | 1.88 | 12.28 | 2.73 | -.223 | 11.672 | -.1.159 | 56 | 7.4217 | .2219 | .0369 | .3991 | .1280 |
| MULTIPLE TREATMENTS | | | | | | | | | | | | | | | |
| 1 | DOSE | 55 | .25 | .32 | 12.38 | 2.13 | -.576 | 12.526 | -.629 | 53 | 4.5881 | .1730 | .8376 | .1357 | .0834 |
| | LOG DOSE | 55 | -2.71 | 1.88 | 12.38 | 2.13 | -.100 | 12.112 | -.642 | 53 | 4.5867 | .1730 | .0241 | .2609 | .0834 |
| 2 | DOSE | 55 | .23 | .31 | 12.36 | 2.20 | -.296 | 12.430 | -.302 | 53 | 4.9110 | .1792 | .9644 | .1362 | .0893 |
| | LOG DOSE | 55 | -2.84 | 1.84 | 12.36 | 2.20 | -.128 | 12.000 | -.786 | 53 | 4.8628 | .1784 | .0265 | .3026 | .0884 |
| 3 | DOSE | 58 | .25 | .32 | 12.62 | 2.04 | -.183 | 12.666 | -.213 | 56 | 4.2404 | .1632 | .7325 | .1192 | .0731 |
| | LOG DOSE | 58 | -2.71 | 1.88 | 12.62 | 2.04 | -.066 | 12.442 | -.455 | 56 | 4.2282 | .1629 | .0210 | .2274 | .0729 |
| 4 | DOSE | 57 | .24 | .32 | 11.47 | 2.87 | -.886 | 11.688 | -.724 | 55 | 8.3245 | .2515 | 1.4959 | .2340 | .1460 |
| | LOG DOSE | 57 | -2.75 | 1.87 | 11.47 | 2.87 | -.148 | 11.066 | -.718 | 55 | 8.3257 | .2515 | .0426 | .4689 | .1461 |
| 5 | DOSE | 59 | .26 | .32 | 11.75 | 2.54 | -.699 | 11.927 | -.672 | 57 | 6.4957 | .2170 | 1.0816 | .1825 | .1101 |
| | LOG DOSE | 59 | -2.67 | 1.89 | 11.75 | 2.54 | -.003 | 11.738 | -.016 | 57 | 6.5471 | .2178 | .0317 | .3368 | .1110 |
| 6 | DOSE | 59 | .26 | .32 | 11.59 | 2.12 | -.937 | 11.836 | -.1.086 | 57 | 4.4730 | .1824 | .7448 | .1257 | .0758 |
| | LOG DOSE | 59 | -2.67 | 1.89 | 11.59 | 2.12 | -.138 | 11.224 | -.937 | 57 | 4.4963 | .1829 | .0218 | .2313 | .0762 |
| 7 | DOSE | 59 | .26 | .32 | 12.20 | 2.20 | -.1.279 | 12.534 | -.1.441 | 57 | 4.7321 | .1783 | .7880 | .1329 | .0802 |
| | LOG DOSE | 59 | -2.67 | 1.89 | 12.20 | 2.20 | -.232 | 11.585 | -.1.535 | 57 | 4.7099 | .1778 | .0228 | .2423 | .0798 |

REGRESSION FITS OF THE NUMBER, U, OF IMPLANTATIONS ON DOSE
 (PREDICTED U = A + B*X) CONTROL GROUP INCLUDED

| WEEK | X | N | XBAR | SD X | UBAR | SD U | B | A | TB | DF | VARU X | CV U | VARB | VARA | VARUBAR |
|---------------------|------|----|------|------|-------|------|--------|--------|--------|----|--------|-------|--------|-------|---------|
| SINGLE TREATMENT | | | | | | | | | | | | | | | |
| 1 | DOSE | 72 | .20 | .30 | 10.89 | 2.06 | -1.806 | 11.251 | -2.309 | 70 | 3.9970 | .1836 | .6118 | .0801 | .0555 |
| 2 | DOSE | 79 | .19 | .30 | 11.43 | 2.61 | .098 | 11.411 | .099 | 77 | 6.8740 | .2294 | .9813 | .1236 | .0870 |
| 3 | DOSE | 79 | .20 | .30 | 12.29 | 1.81 | -.883 | 12.470 | -1.322 | 77 | 3.2293 | .1462 | .4459 | .0591 | .0409 |
| 4 | DOSE | 76 | .19 | .30 | 12.58 | 3.13 | -.690 | 12.710 | -.567 | 74 | 9.8831 | .2499 | 1.4806 | .1837 | .1300 |
| 5 | DOSE | 76 | .18 | .29 | 12.32 | 1.86 | -.876 | 12.475 | -1.193 | 74 | 3.4528 | .1509 | .5392 | .0633 | .0454 |
| 6 | DOSE | 76 | .18 | .29 | 11.24 | 2.69 | -1.494 | 11.507 | -1.416 | 74 | 7.1539 | .2380 | 1.1136 | .1306 | .0941 |
| 7 | DOSE | 78 | .20 | .30 | 11.67 | 2.94 | 1.723 | 11.329 | 1.562 | 76 | 8.4821 | .2496 | 1.2174 | .1554 | .1087 |
| 8 | DOSE | 75 | .19 | .30 | 12.16 | 3.09 | -.462 | 12.250 | -.382 | 73 | 9.6804 | .2559 | 1.4633 | .1841 | .1291 |
| MULTIPLE TREATMENTS | | | | | | | | | | | | | | | |
| 1 | DOSE | 75 | .18 | .29 | 12.44 | 1.99 | -.618 | 12.553 | -.784 | 73 | 3.9731 | .1602 | .6214 | .0738 | .0530 |
| 2 | DOSE | 74 | .17 | .28 | 12.36 | 2.13 | -.262 | 12.409 | -.295 | 72 | 4.5937 | .1733 | .7909 | .0842 | .0621 |
| 3 | DOSE | 77 | .19 | .30 | 12.55 | 1.98 | .006 | 12.544 | .007 | 75 | 3.9612 | .1586 | .5922 | .0726 | .0514 |
| 4 | DOSE | 77 | .18 | .29 | 11.55 | 2.70 | -.920 | 11.711 | -.862 | 75 | 7.3286 | .2345 | 1.1387 | .1319 | .0952 |
| 5 | DOSE | 78 | .20 | .30 | 11.88 | 2.48 | -.907 | 12.062 | -.966 | 76 | 6.1347 | .2084 | .8805 | .1124 | .0786 |
| 6 | DOSE | 79 | .19 | .30 | 11.49 | 2.34 | -.586 | 11.607 | -.660 | 77 | 5.5239 | .2045 | .7886 | .0994 | .0699 |
| 7 | DOSE | 79 | .19 | .30 | 12.46 | 2.06 | -1.647 | 12.774 | -2.170 | 77 | 4.0338 | .1612 | .5758 | .0726 | .0511 |

T-TEST OF THE (TRANSFORMED) PRE-IMPLANTATION LOSSES IN PREGNANT FEMALES
 (LOSSES TAKEN AS A SUBSET OF CORPORA LUTEA)

| WEEK | CONTROL | | | | 71-61 .0072 G/KG | | | | 71-61 .072 G/KG | | | | 71-61 .72 G/KG | | | | TEM .2 MG/KG | | | | | | |
|--------------------|---------|-----|------|---------|------------------|-----|------|---------|-----------------|-----|-----|-----|----------------|---------|-----|-----|--------------|-------|------|---------|-----|----|-------|
| | N | PRG | MEAN | STD DEV | N | PRG | MEAN | STD DEV | DF | T | N | PRG | MEAN | STD DEV | DF | T | N | PRG | MEAN | STD DEV | DF | T | |
| SINGLE TREATMENT | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 19 | .68 | .35 | 16 | .58 | .40 | 33 | .825 | 19 | .63 | .33 | 36 | .443 | 18 | .82 | .41 | 35 | 1.140 | 14 | 1.23 | .65 | 31 | 3.127 |
| 2 | 20 | .89 | .59 | 20 | .59 | .41 | 38 | 1.869 | 20 | .49 | .34 | 38 | 2.582 | 19 | .76 | .35 | 37 | .833 | 9 | 2.05 | .44 | 27 | 5.208 |
| 3 | 20 | .61 | .43 | 19 | .51 | .26 | 37 | .865 | 20 | .47 | .24 | 38 | 1.244 | 20 | .66 | .37 | 38 | .396 | 17 | 2.14 | .58 | 35 | 9.224 |
| 4 | 19 | .73 | .58 | 20 | .62 | .39 | 37 | .719 | 19 | .72 | .40 | 36 | .103 | 18 | .62 | .61 | 35 | .564 | 12 | 1.96 | .68 | 29 | 5.385 |
| 5 | 19 | .64 | .24 | 20 | .70 | .40 | 37 | .559 | 20 | .52 | .25 | 37 | 1.536 | 17 | .65 | .40 | 34 | .114 | 19 | 1.00 | .62 | 36 | 2.383 |
| 6 | 20 | .68 | .40 | 20 | .52 | .48 | 38 | 1.195 | 19 | .69 | .36 | 37 | .014 | 17 | .81 | .58 | 35 | .769 | 20 | .55 | .41 | 38 | 1.070 |
| 7 | 19 | .82 | .65 | 20 | .58 | .54 | 37 | 1.226 | 20 | .63 | .33 | 37 | 1.125 | 19 | .48 | .38 | 36 | 1.977 | 20 | .86 | .54 | 37 | .223 |
| 8 | 17 | .63 | .65 | 20 | .53 | .24 | 35 | .629 | 20 | .67 | .55 | 35 | .200 | 18 | .75 | .54 | 33 | .608 | 19 | .77 | .69 | 34 | .615 |
| MULTIPLE TREATMENT | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 20 | .44 | .29 | 19 | .54 | .32 | 37 | .959 | 19 | .57 | .34 | 37 | 1.268 | 17 | .61 | .52 | 35 | 1.244 | | | | | |
| 2 | 19 | .49 | .32 | 20 | .59 | .36 | 37 | .974 | 20 | .66 | .26 | 37 | 1.860 | 15 | .61 | .43 | 32 | .993 | | | | | |
| 3 | 19 | .48 | .24 | 20 | .52 | .25 | 37 | .501 | 20 | .62 | .44 | 37 | 1.249 | 18 | .65 | .35 | 35 | 1.747 | | | | | |
| 4 | 20 | .67 | .40 | 20 | .68 | .45 | 38 | .058 | 20 | .65 | .32 | 38 | .158 | 17 | .76 | .68 | 35 | .518 | | | | | |
| 5 | 19 | .61 | .38 | 20 | .60 | .36 | 37 | .023 | 20 | .50 | .39 | 37 | .829 | 19 | .67 | .52 | 36 | .433 | | | | | |
| 6 | 20 | .70 | .47 | 20 | .55 | .32 | 38 | 1.145 | 20 | .67 | .49 | 38 | .215 | 19 | .81 | .42 | 37 | .815 | | | | | |
| 7 | 20 | .49 | .24 | 20 | .47 | .30 | 38 | .282 | 20 | .54 | .32 | 38 | .522 | 19 | .84 | .51 | 37 | 2.721 | | | | | |

T-TEST OF THE NUMBER OF DEAD IMPLANTS

| WEEK | CONTROL | | | | 71-61 .0072 G/KG | | | | 71-61 .072 G/KG | | | | 71-61 .72 G/KG | | | | TEM .2 MG/KG | | | |
|------|---------|-----|------|---------|------------------|-----|------|---------|-----------------|-----|------|---------|----------------|-----|------|---------|--------------|-----|------|---------|
| | N | PRG | MEAN | STD DEV | N | PRG | MEAN | STD DEV | N | PRG | MEAN | STD DEV | N | PRG | MEAN | STD DEV | N | PRG | MEAN | STD DEV |

SINGLE TREATMENT

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|------|------|----|------|------|----|-------|----|------|------|----|-------|----|------|------|----|-------|----|------|------|----|-------|
| 1 | 19 | 2.00 | 3.27 | 16 | 1.13 | 2.03 | 33 | .930 | 19 | 1.11 | .99 | 36 | 1.142 | 18 | 1.17 | 1.86 | 35 | .947 | 14 | 6.07 | 2.73 | 31 | 3.786 |
| 2 | 20 | .50 | .83 | 20 | .75 | 1.07 | 38 | .827 | 20 | .75 | .91 | 38 | .909 | 19 | .95 | 1.58 | 37 | 1.116 | 9 | 3.11 | 2.15 | 27 | 4.786 |
| 3 | 20 | 1.40 | 1.60 | 19 | .89 | 1.20 | 37 | 1.111 | 20 | 1.00 | 1.26 | 38 | .878 | 20 | .80 | .95 | 38 | 1.440 | 17 | 1.88 | 1.69 | 35 | .890 |
| 4 | 19 | 1.58 | 2.24 | 20 | .65 | 1.14 | 37 | 1.643 | 19 | 1.68 | 2.08 | 36 | .150 | 18 | 1.39 | 1.24 | 35 | .316 | 12 | 2.17 | 1.99 | 29 | .741 |
| 5 | 19 | .84 | 1.21 | 20 | .55 | .83 | 37 | .883 | 20 | 1.90 | 3.93 | 37 | 1.122 | 17 | .94 | 1.34 | 34 | .232 | 19 | 8.58 | 3.67 | 36 | 8.721 |
| 6 | 20 | 1.30 | 1.63 | 20 | .45 | .60 | 38 | 2.192 | 19 | .53 | .96 | 37 | 1.796 | 17 | .53 | .72 | 35 | 1.808 | 20 | 2.45 | 3.36 | 38 | 1.377 |
| 7 | 19 | 1.37 | 2.95 | 20 | .60 | 1.27 | 37 | 1.066 | 20 | 1.05 | 1.39 | 37 | .435 | 19 | .42 | .77 | 36 | 1.356 | 20 | .85 | 1.27 | 37 | .720 |
| 8 | 17 | .41 | .71 | 20 | .75 | 1.21 | 35 | 1.013 | 20 | .65 | .81 | 35 | .940 | 18 | 1.06 | 1.63 | 33 | 1.501 | 19 | 1.47 | 1.78 | 34 | 2.303 |

MULTIPLE TREATMENT

| | | | | | | | | | | | | | | | | | | |
|---|----|------|------|----|------|------|----|-------|----|------|------|----|-------|----|------|------|----|-------|
| 1 | 20 | 1.25 | 1.89 | 19 | .58 | .90 | 37 | 1.404 | 19 | .95 | 1.99 | 37 | .488 | 17 | .47 | 1.46 | 35 | 1.384 |
| 2 | 19 | 1.21 | 2.15 | 20 | 1.05 | 1.50 | 37 | .271 | 20 | 1.25 | 1.83 | 37 | .062 | 15 | .80 | 1.01 | 32 | .681 |
| 3 | 19 | .79 | 1.03 | 20 | .60 | 1.19 | 37 | .531 | 20 | 1.05 | 1.73 | 37 | .567 | 18 | 1.00 | 1.50 | 35 | .501 |
| 4 | 20 | 1.70 | 1.59 | 20 | .70 | 1.69 | 38 | 1.926 | 20 | 1.25 | 2.59 | 38 | .661 | 17 | .71 | 1.40 | 35 | 1.997 |
| 5 | 19 | 1.00 | 1.05 | 20 | .50 | .83 | 37 | 1.653 | 20 | 1.00 | 1.17 | 37 | 0.000 | 19 | .74 | 1.73 | 36 | .567 |
| 6 | 20 | .80 | 1.01 | 20 | .95 | 1.10 | 38 | .450 | 20 | .35 | .59 | 38 | 1.729 | 19 | 1.37 | 1.74 | 37 | 1.258 |
| 7 | 20 | .55 | .76 | 20 | .70 | 1.30 | 38 | .445 | 20 | .30 | .57 | 38 | 1.177 | 19 | .63 | .83 | 37 | .320 |

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE DEATH INDEX
(1 DEGREE OF FREEDOM) BASED ON THE DOSE LEVELS

.0072 G/KG .072 G/KG .72 G/KG

| WEEK | N | | N | | N | | N | | CHISQ (C-1) | CHISQ (1) | ARMTG CHISQ |
|------|-----|-----|-----|-----|-----|-----|---|--|----------------|--------------|----------------|
| | WDI | PRG | WDI | PRG | WDI | PRG | | | | | |

SINGLE TREATMENT

| | | | | | | | | | |
|---|---|----|----|----|----|----|------|------|------|
| 1 | 8 | 16 | 14 | 19 | 9 | 18 | 2.82 | .61 | 2.21 |
| 2 | 9 | 20 | 10 | 20 | 8 | 19 | .25 | .13 | .12 |
| 3 | 9 | 19 | 11 | 20 | 10 | 20 | .24 | .00 | .23 |
| 4 | 7 | 20 | 13 | 19 | 14 | 18 | 8.11 | 4.28 | 3.84 |
| 5 | 8 | 20 | 10 | 20 | 9 | 17 | .70 | .36 | .34 |
| 6 | 8 | 20 | 7 | 19 | 7 | 17 | .08 | .03 | .05 |
| 7 | 6 | 20 | 10 | 20 | 6 | 19 | 2.10 | .26 | 1.84 |
| 8 | 7 | 20 | 10 | 20 | 8 | 18 | .94 | .05 | .89 |

MULTIPLE TREATMENT

| | | | | | | | | | |
|---|----|----|----|----|----|----|------|------|------|
| 1 | 7 | 19 | 7 | 19 | 3 | 17 | 2.03 | 2.01 | .01 |
| 2 | 11 | 20 | 11 | 20 | 7 | 15 | .30 | .30 | .00 |
| 3 | 7 | 20 | 9 | 20 | 8 | 18 | .51 | .14 | .38 |
| 4 | 5 | 20 | 9 | 20 | 5 | 17 | 1.97 | .08 | 1.88 |
| 5 | 7 | 20 | 12 | 20 | 5 | 19 | 4.99 | 1.98 | 3.00 |
| 6 | 10 | 20 | 6 | 20 | 11 | 19 | 3.27 | 1.39 | 1.88 |
| 7 | 7 | 20 | 5 | 20 | 9 | 19 | 2.13 | 1.54 | .59 |

ARMITAGE TEST FOR A LINEAR TREND IN PRO
(1 DEGREE OF FREEDOM)

IONS FOR THE DEATH INDEX
BASED ON THE LOGARITHMS OF THE DOSE LEVELS

.0072 G/KG .072 G/KG .72 G/KG

| WEEK | N | | N | | N | | CHISQ (C-1) | CHISQ (1) | ARMTG CHISQ |
|------|-----|-----|-----|-----|-----|-----|----------------|--------------|----------------|
| | WDI | PRG | WDI | PRG | WDI | PRG | | | |

SINGLE TREATMENT

| | | | | | | | | | |
|---|---|----|----|----|----|----|------|------|------|
| 1 | 8 | 16 | 14 | 19 | 9 | 18 | 2.82 | .00 | 2.81 |
| 2 | 9 | 20 | 10 | 20 | 8 | 19 | .25 | .03 | .22 |
| 3 | 9 | 19 | 11 | 20 | 10 | 20 | .24 | .02 | .21 |
| 4 | 7 | 20 | 13 | 19 | 14 | 18 | 8.11 | 7.35 | .76 |
| 5 | 8 | 20 | 10 | 20 | 9 | 17 | .70 | .64 | .06 |
| 6 | 8 | 20 | 7 | 19 | 7 | 17 | .08 | .00 | .07 |
| 7 | 6 | 20 | 10 | 20 | 6 | 19 | 2.10 | .02 | 2.09 |
| 8 | 7 | 20 | 10 | 20 | 8 | 18 | .94 | .37 | .56 |

MULTIPLE TREATMENT

| | | | | | | | | | |
|---|----|----|----|----|----|----|------|------|------|
| 1 | 7 | 19 | 7 | 19 | 3 | 17 | 2.03 | 1.49 | .54 |
| 2 | 11 | 20 | 11 | 20 | 7 | 15 | .30 | .22 | .09 |
| 3 | 7 | 20 | 9 | 20 | 8 | 18 | .51 | .36 | .15 |
| 4 | 5 | 20 | 9 | 20 | 5 | 17 | 1.97 | .12 | 1.85 |
| 5 | 7 | 20 | 12 | 20 | 5 | 19 | 4.99 | .27 | 4.72 |
| 6 | 10 | 20 | 6 | 20 | 11 | 19 | 3.27 | .22 | 3.05 |
| 7 | 7 | 20 | 5 | 20 | 9 | 19 | 2.13 | .62 | 1.51 |

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE DEATH INDEX
(2 DEGREES OF FREEDOM) BASED ON THE DOSE LEVELS AND INCLUDING THE CONTROL GROUP

| WEEK | CONTROL | | .0072 G/KG | | .072 G/KG | | .72 G/KG | | CHISQ (C-1) | CHISQ (1) | ARMTG CHISQ | | |
|------|---------|-----|------------|-----|-----------|-----|----------|-----|----------------|--------------|----------------|-----|-----|
| | N | N | N | N | WDI | PRG | WDI | PRG | | | | WDI | PRG |
| | WDI | PRG | WDI | PRG | WDI | PRG | WDI | PRG | | | | WDI | PRG |

SINGLE TREATMENT

| | | | | | | | | | | | |
|---|----|----|---|----|----|----|----|----|------|------|------|
| 1 | 14 | 19 | 8 | 16 | 14 | 19 | 9 | 18 | 4.29 | 1.43 | 2.86 |
| 2 | 7 | 20 | 9 | 20 | 10 | 20 | 8 | 19 | .96 | .00 | .96 |
| 3 | 12 | 20 | 9 | 19 | 11 | 20 | 10 | 20 | .74 | .11 | .63 |
| 4 | 11 | 19 | 7 | 20 | 13 | 19 | 14 | 18 | 8.10 | 3.87 | 4.24 |
| 5 | 8 | 19 | 8 | 20 | 10 | 20 | 9 | 17 | .86 | .50 | .36 |
| 6 | 12 | 20 | 8 | 20 | 7 | 19 | 7 | 17 | 2.63 | .19 | 2.44 |
| 7 | 10 | 19 | 6 | 20 | 10 | 20 | 6 | 19 | 3.43 | .82 | 2.60 |
| 8 | 5 | 17 | 7 | 20 | 10 | 20 | 8 | 18 | 1.98 | .32 | 1.66 |

MULTIPLE TREATMENT

| | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|-------|------|-------|
| 1 | 10 | 20 | 7 | 19 | 7 | 19 | 3 | 17 | 4.20 | 3.39 | .81 |
| 2 | 7 | 19 | 11 | 20 | 11 | 20 | 7 | 15 | 1.73 | .01 | 1.72 |
| 3 | 8 | 19 | 7 | 20 | 9 | 20 | 8 | 18 | .52 | .11 | .41 |
| 4 | 15 | 20 | 5 | 20 | 9 | 20 | 5 | 17 | 12.20 | 2.09 | 10.11 |
| 5 | 11 | 19 | 7 | 20 | 12 | 20 | 5 | 19 | 6.59 | 3.16 | 3.42 |
| 6 | 11 | 20 | 10 | 20 | 6 | 20 | 11 | 19 | 3.77 | .67 | 3.10 |
| 7 | 9 | 20 | 7 | 20 | 5 | 20 | 9 | 19 | 2.64 | .73 | 1.91 |

PROBIT ANALYSIS OF THE PROPORTION OF PREGN. FEMALES WITH ONE OR MORE DEAD IMPLANTS
PROBIT = A + B(LOG DOSE)

| WEEK | B | A | CHISQ | DF |
|------|-------|-------|-------|----|
| ---- | ----- | ----- | ----- | -- |

SINGLE TREATMENT

| | | | | |
|---|-------|-------|------|---|
| 1 | -.013 | 5.200 | 2.81 | 1 |
| 2 | -.035 | 4.853 | .22 | 1 |
| 3 | .032 | 5.057 | .21 | 1 |
| 4 | .590 | 5.967 | .61 | 1 |
| 5 | .166 | 5.132 | .07 | 1 |
| 6 | .013 | 4.743 | .07 | 1 |
| 7 | .026 | 4.705 | 2.09 | 1 |
| 8 | .126 | 4.973 | .57 | 1 |

MULTIPLE TREATMENT

| | | | | |
|---|-------|-------|------|---|
| 1 | -.276 | 4.163 | .64 | 1 |
| 2 | -.099 | 4.946 | .09 | 1 |
| 3 | .124 | 4.927 | .15 | 1 |
| 4 | .076 | 4.659 | 1.85 | 1 |
| 5 | -.1n7 | 4.638 | 4.75 | 1 |
| 6 | .094 | 5.002 | 3.05 | 1 |
| 7 | .161 | 4.814 | 1.49 | 1 |

T-TEST OF THE (TRANSFORMED) NUMBER OF DEAD IMPLANTS
(DEAD IMPLANTS TAKEN AS A SUBSET OF IMPLANTS)

| WEEK | CONTROL | | 71-61 .0072 G/KG | | | | | 71-61 .072 G/KG | | | | | 71-61 .72 G/KG | | | | | TEM | | .2 MG/KG | | | |
|--------------------|----------|------|------------------|----------|------|------------|----|-----------------|----------|------|------------|----|----------------|----------|------|------------|----|-------|----------|----------|------------|----|--------|
| | N PRG | MEAN | STD DEV | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T |
| SINGLE TREATMENT | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 19 | .80 | .51 | 16 | .65 | .50 | 33 | .900 | 19 | .69 | .33 | 36 | .789 | 18 | .67 | .45 | 35 | .842 | 14 | 2.19 | .44 | 31 | 8.247 |
| 2 | 20 | .55 | .48 | 20 | .53 | .30 | 38 | .184 | 20 | .54 | .28 | 38 | .093 | 19 | .56 | .36 | 37 | .014 | 9 | 2.56 | .17 | 27 | 12.077 |
| 3 | 20 | .67 | .36 | 19 | .54 | .31 | 37 | 1.193 | 20 | .59 | .33 | 38 | .745 | 20 | .55 | .30 | 38 | 1.076 | 17 | 2.31 | .36 | 35 | 13.791 |
| 4 | 19 | .72 | .44 | 20 | .46 | .29 | 37 | 2.143 | 19 | .71 | .38 | 36 | .073 | 18 | .73 | .26 | 35 | .056 | 12 | 2.14 | .89 | 29 | 5.916 |
| 5 | 19 | .53 | .33 | 20 | .49 | .29 | 37 | .438 | 20 | .68 | .65 | 37 | .885 | 17 | .59 | .35 | 34 | .492 | 19 | 2.35 | .50 | 36 | 13.315 |
| 6 | 20 | .67 | .37 | 20 | .51 | .34 | 38 | 1.465 | 19 | .48 | .31 | 37 | 1.758 | 17 | .55 | .36 | 35 | 1.015 | 20 | .89 | .64 | 38 | 1.313 |
| 7 | 19 | .79 | .73 | 20 | .48 | .32 | 37 | 1.725 | 20 | .58 | .33 | 37 | 1.177 | 19 | .42 | .23 | 36 | 2.075 | 20 | .60 | .38 | 37 | 1.014 |
| 8 | 17 | .46 | .25 | 20 | .48 | .31 | 35 | .225 | 20 | .53 | .25 | 35 | .850 | 18 | .59 | .36 | 33 | 1.195 | 19 | .71 | .36 | 34 | 2.415 |
| MULTIPLE TREATMENT | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 20 | .60 | .40 | 19 | .46 | .25 | 37 | 1.323 | 19 | .52 | .41 | 37 | .589 | 17 | .42 | .33 | 35 | 1.482 | | | | | |
| 2 | 19 | .58 | .46 | 20 | .58 | .34 | 37 | .041 | 20 | .64 | .41 | 37 | .435 | 15 | .54 | .31 | 32 | .267 | | | | | |
| 3 | 19 | .53 | .32 | 20 | .46 | .30 | 37 | .749 | 20 | .57 | .38 | 37 | .359 | 18 | .56 | .36 | 35 | .226 | | | | | |
| 4 | 20 | .77 | .34 | 20 | .48 | .42 | 38 | 2.410 | 20 | .61 | .50 | 38 | 1.209 | 17 | .54 | .42 | 35 | 1.841 | | | | | |
| 5 | 19 | .61 | .33 | 20 | .47 | .28 | 37 | 1.341 | 20 | .59 | .28 | 37 | .205 | 19 | .52 | .42 | 36 | .735 | | | | | |
| 6 | 20 | .59 | .30 | 20 | .58 | .33 | 38 | .049 | 20 | .43 | .22 | 38 | 1.875 | 19 | .70 | .44 | 37 | .961 | | | | | |
| 7 | 20 | .46 | .24 | 20 | .47 | .31 | 38 | .129 | 20 | .39 | .19 | 38 | 1.120 | 19 | .52 | .28 | 37 | .721 | | | | | |

CONTROL GROUP ANOVA FOR THE NUMBER OF PREGNANT FEMALES

| WEEK | BETWEEN MALES | | | WITHIN MALES | | | TOTAL | | | F |
|--------------------|---------------|----|--------|--------------|----|--------|-------|----|--|-------|
| | SUMSQ | DF | MEANSQ | SUMSQ | DF | MEANSQ | SUMSQ | DF | | |
| SINGLE TREATMENT | | | | | | | | | | |
| 1 | .450 | 9 | .050 | .500 | 10 | .050 | .950 | 19 | | 1.000 |
| 2 | 0.000 | 9 | 0.000 | 0.000 | 10 | 0.000 | 0.000 | 19 | | I |
| 3 | 0.000 | 9 | 0.000 | 0.000 | 10 | 0.000 | 0.000 | 19 | | I |
| 4 | .450 | 9 | .050 | .500 | 10 | .050 | .950 | 19 | | 1.000 |
| 5 | .450 | 9 | .050 | .500 | 10 | .050 | .950 | 19 | | 1.000 |
| 6 | 0.000 | 9 | 0.000 | 0.000 | 10 | 0.000 | 0.000 | 19 | | I |
| 7 | .450 | 9 | .050 | .500 | 10 | .050 | .950 | 19 | | 1.000 |
| 8 | 1.050 | 9 | .117 | 1.500 | 10 | .150 | 2.550 | 19 | | .778 |
| MULTIPLE TREATMENT | | | | | | | | | | |
| 1 | 0.000 | 9 | 0.000 | 0.000 | 10 | 0.000 | 0.000 | 19 | | I |
| 2 | .450 | 9 | .050 | .500 | 10 | .050 | .950 | 19 | | 1.000 |
| 3 | .450 | 9 | .050 | .500 | 10 | .050 | .950 | 19 | | 1.000 |
| 4 | 0.000 | 9 | 0.000 | 0.000 | 10 | 0.000 | 0.000 | 19 | | I |
| 5 | .450 | 9 | .050 | .500 | 10 | .050 | .950 | 19 | | 1.000 |
| 6 | 0.000 | 9 | 0.000 | 0.000 | 10 | 0.000 | 0.000 | 19 | | I |
| 7 | 0.000 | 9 | 0.000 | 0.000 | 10 | 0.000 | 0.000 | 19 | | I |

CONTROL GROUP ANOVA FOR THE NUMBER OF IMPLANTATIONS PER PREGNANT FEMALE

| WEEK | BETWEEN MALES | | | WITHIN MALES | | | TOTAL | | | F |
|--------------------|---------------|----|--------|--------------|----|--------|---------|----|-------|---|
| | SUMSQ | DF | MEANSQ | SUMSQ | DF | MEANSQ | SUMSQ | DF | ----- | |
| SINGLE TREATMENT | | | | | | | | | | |
| 1 | 41.710 | 9 | 4.634 | 46.000 | 9 | 5.111 | 87.710 | 18 | .907 | |
| 2 | 104.450 | 9 | 11.606 | 124.500 | 10 | 12.450 | 228.950 | 19 | .932 | |
| 3 | 77.200 | 9 | 8.578 | 20.000 | 10 | 2.000 | 97.200 | 19 | 4.289 | |
| 4 | 89.247 | 9 | 9.916 | 135.500 | 9 | 15.056 | 224.747 | 18 | .659 | |
| 5 | 18.147 | 9 | 2.016 | 10.500 | 9 | 1.167 | 28.647 | 18 | 1.728 | |
| 6 | 49.800 | 9 | 5.533 | 71.000 | 10 | 7.100 | 120.800 | 19 | .779 | |
| 7 | 125.710 | 9 | 13.968 | 124.000 | 9 | 13.778 | 249.710 | 18 | 1.014 | |
| 8 | 106.000 | 9 | 11.778 | 174.000 | 7 | 24.857 | 280.000 | 16 | .474 | |
| MULTIPLE TREATMENT | | | | | | | | | | |
| 1 | 33.800 | 9 | 3.756 | 13.000 | 10 | 1.300 | 46.800 | 19 | 2.889 | |
| 2 | 55.187 | 9 | 6.132 | 15.500 | 9 | 1.722 | 70.687 | 18 | 3.560 | |
| 3 | 27.750 | 9 | 3.083 | 31.000 | 9 | 3.444 | 58.750 | 18 | .895 | |
| 4 | 37.250 | 9 | 4.139 | 54.500 | 10 | 5.450 | 91.750 | 19 | .759 | |
| 5 | 54.628 | 9 | 6.070 | 39.500 | 9 | 4.389 | 94.128 | 18 | 1.383 | |
| 6 | 31.200 | 9 | 3.467 | 134.000 | 10 | 13.400 | 165.200 | 19 | .259 | |
| 7 | 21.200 | 9 | 2.356 | 14.000 | 10 | 1.400 | 35.200 | 19 | 1.683 | |

CONTROL GROUP ANOVA FOR THE NUMBER OF DEAD IMPLANTS PER PREGNANT FEMALE

| WEEK | BETWEEN MALES | | | WITHIN MALES | | | TOTAL | | | F |
|--------------------|---------------|----|--------|--------------|----|--------|---------|----|--|-------|
| | SUMSQ | DF | MEANSQ | SUMSQ | DF | MEANSQ | SUMSQ | DF | | |
| SINGLE TREATMENT | | | | | | | | | | |
| 1 | 178.840 | 9 | 19.871 | 20.000 | 9 | 2.222 | 198.840 | 18 | | 8.942 |
| 2 | 4.000 | 9 | .444 | 9.000 | 10 | .900 | 13.000 | 19 | | .494 |
| 3 | 18.800 | 9 | 2.089 | 30.000 | 10 | 3.000 | 48.800 | 19 | | .696 |
| 4 | 48.750 | 9 | 5.417 | 42.000 | 9 | 4.667 | 90.750 | 18 | | 1.161 |
| 5 | 12.560 | 9 | 1.396 | 14.000 | 9 | 1.556 | 26.560 | 18 | | .897 |
| 6 | 21.200 | 9 | 2.356 | 29.000 | 10 | 2.900 | 50.200 | 19 | | .812 |
| 7 | 67.927 | 9 | 7.547 | 88.500 | 9 | 9.833 | 156.427 | 18 | | .768 |
| 8 | 3.683 | 9 | .409 | 4.500 | 7 | .643 | 8.183 | 16 | | .636 |
| MULTIPLE TREATMENT | | | | | | | | | | |
| 1 | 31.250 | 9 | 3.472 | 36.500 | 10 | 3.650 | 67.750 | 19 | | .951 |
| 2 | 29.688 | 9 | 3.299 | 53.500 | 9 | 5.944 | 83.187 | 18 | | .555 |
| 3 | 8.688 | 9 | .965 | 10.500 | 9 | 1.167 | 19.187 | 18 | | .827 |
| 4 | 22.200 | 9 | 2.467 | 26.000 | 10 | 2.600 | 48.200 | 19 | | .949 |
| 5 | 7.547 | 9 | .839 | 12.500 | 9 | 1.389 | 20.047 | 18 | | .604 |
| 6 | 13.200 | 9 | 1.467 | 6.000 | 10 | .600 | 19.200 | 19 | | 2.444 |
| 7 | 4.450 | 9 | .494 | 6.500 | 10 | .650 | 10.950 | 19 | | .761 |

CONTROL GROUP ANOVA FOR THE RATIO DEAD IMPLANTS TO TOTAL IMPLANTS PER PREGNANT FEMALE

| WEEK | BETWEEN MALES | | | WITHIN MALES | | | TOTAL | | | F |
|--------------------|---------------|----|--------|--------------|----|--------|-------|----|--|-------|
| | SUMSQ | DF | MEANSQ | SUMSQ | DF | MEANSQ | SUMSQ | DF | | |
| SINGLE TREATMENT | | | | | | | | | | |
| 1 | .703 | 9 | .078 | .120 | 9 | .013 | .823 | 18 | | 5.871 |
| 2 | .404 | 9 | .045 | .549 | 10 | .055 | .953 | 19 | | .817 |
| 3 | .112 | 9 | .012 | .168 | 10 | .017 | .280 | 19 | | .738 |
| 4 | .305 | 9 | .034 | .200 | 9 | .022 | .505 | 18 | | 1.524 |
| 5 | .084 | 9 | .009 | .081 | 9 | .009 | .166 | 18 | | 1.040 |
| 6 | .163 | 9 | .018 | .151 | 10 | .015 | .314 | 19 | | 1.201 |
| 7 | .881 | 9 | .098 | .806 | 9 | .090 | 1.687 | 18 | | 1.093 |
| 8 | .023 | 9 | .003 | .028 | 7 | .004 | .051 | 16 | | .633 |
| MULTIPLE TREATMENT | | | | | | | | | | |
| 1 | .172 | 9 | .019 | .208 | 10 | .021 | .380 | 19 | | .916 |
| 2 | .200 | 9 | .022 | .334 | 9 | .037 | .535 | 18 | | .599 |
| 3 | .057 | 9 | .006 | .083 | 9 | .009 | .141 | 18 | | .689 |
| 4 | .145 | 9 | .016 | .115 | 10 | .012 | .260 | 19 | | 1.403 |
| 5 | .072 | 9 | .008 | .139 | 9 | .015 | .211 | 18 | | .521 |
| 6 | .102 | 9 | .011 | .052 | 10 | .005 | .154 | 19 | | 2.186 |
| 7 | .032 | 9 | .004 | .049 | 10 | .005 | .082 | 19 | | .731 |

T-TEST OF THE NUMBER OF CORPORA LUTEA IN PREGNANT FEMALES

| WEEK | CONTROL | | 71-61 .0072 G/KG | | | | | | 71-61 .072 G/KG | | | | | | 71-61 .72 G/KG | | | | | | TEM .2 MG/KG | | | | |
|--------------------|----------|-------|------------------|----------|-------|------------|----|-------|-----------------|-------|------------|----|-------|----------|----------------|------------|----|-------|----------|-------|--------------|----|-------|--|--|
| | N PRG | MEAN | STD DEV | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | N PRG | MEAN | STD DEV | DF | T | | |
| SINGLE TREATMENT | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 19 | 13.00 | 2.26 | 16 | 12.06 | 1.91 | 33 | 1.309 | 19 | 12.42 | 1.64 | 36 | .903 | 18 | 11.89 | 1.28 | 35 | 1.826 | 14 | 12.29 | 2.05 | 31 | .932 | | |
| 2 | 20 | 13.60 | 3.57 | 20 | 13.20 | 1.67 | 38 | .453 | 20 | 12.70 | 1.75 | 38 | 1.011 | 19 | 13.16 | 1.50 | 37 | .499 | 9 | 12.11 | 2.52 | 27 | 1.125 | | |
| 3 | 20 | 13.65 | 1.46 | 19 | 13.79 | 1.96 | 37 | .253 | 20 | 12.80 | 1.47 | 38 | 1.833 | 20 | 13.45 | 2.61 | 38 | .299 | 17 | 11.76 | 2.86 | 35 | 2.581 | | |
| 4 | 19 | 13.84 | 1.74 | 20 | 14.70 | 1.95 | 37 | 1.447 | 19 | 15.11 | 1.94 | 36 | 2.112 | 18 | 13.78 | 1.70 | 35 | .114 | 12 | 14.08 | 2.15 | 29 | .343 | | |
| 5 | 19 | 13.63 | 1.42 | 20 | 13.45 | 1.54 | 37 | .382 | 20 | 13.95 | 1.39 | 37 | .706 | 17 | 13.35 | 1.90 | 34 | .501 | 19 | 14.00 | 2.13 | 36 | .626 | | |
| 6 | 20 | 12.90 | 1.89 | 20 | 12.45 | 1.96 | 38 | .739 | 19 | 13.05 | 1.43 | 37 | .283 | 17 | 12.71 | 2.08 | 35 | .297 | 20 | 13.35 | 1.27 | 38 | .885 | | |
| 7 | 19 | 12.42 | 1.71 | 20 | 12.80 | 1.51 | 37 | .735 | 20 | 13.65 | 1.31 | 37 | 2.528 | 19 | 13.32 | 1.80 | 36 | 1.572 | 20 | 13.10 | 2.31 | 37 | 1.037 | | |
| 8 | 17 | 13.12 | 1.93 | 20 | 13.75 | 1.12 | 35 | 1.241 | 20 | 13.50 | 1.47 | 35 | .683 | 18 | 14.06 | 2.60 | 33 | 1.205 | 19 | 13.58 | 1.50 | 34 | .804 | | |
| MULTIPLE TREATMENT | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 20 | 13.20 | 1.24 | 19 | 13.68 | 2.69 | 37 | .728 | 19 | 13.58 | 1.26 | 37 | .946 | 17 | 13.35 | 1.58 | 35 | .330 | | | | | | | |
| 2 | 19 | 13.11 | 1.56 | 20 | 14.00 | 1.62 | 37 | 1.754 | 20 | 13.25 | 1.41 | 37 | .304 | 15 | 13.53 | 1.36 | 32 | .841 | | | | | | | |
| 3 | 19 | 12.89 | 1.56 | 20 | 13.65 | 1.53 | 37 | 1.526 | 20 | 14.10 | 2.05 | 37 | 2.059 | 18 | 14.00 | 1.37 | 35 | 2.284 | | | | | | | |
| 4 | 20 | 13.30 | 1.53 | 20 | 13.55 | 2.09 | 38 | .432 | 20 | 12.85 | 2.25 | 38 | .739 | 17 | 13.24 | 1.82 | 35 | .118 | | | | | | | |
| 5 | 19 | 13.68 | 2.06 | 20 | 12.55 | 1.61 | 37 | 1.926 | 20 | 13.40 | 1.64 | 37 | .479 | 19 | 12.79 | 1.90 | 36 | 1.392 | | | | | | | |
| 6 | 20 | 12.70 | 1.69 | 20 | 12.75 | 1.21 | 38 | .108 | 20 | 13.20 | 1.15 | 38 | 1.094 | 19 | 13.68 | 2.94 | 37 | 1.289 | | | | | | | |
| 7 | 20 | 13.95 | 1.67 | 20 | 13.45 | 1.79 | 38 | .913 | 20 | 13.20 | 1.47 | 38 | 1.507 | 19 | 14.58 | 3.31 | 37 | .756 | | | | | | | |